Supreme Court, U. S.
FILED
JUN 6 1977
MICHAEL RODAK, JR., CLERK

IN THE

Supreme Court of the United States

OCTOBER TERM, 1976

No. 76-419

VERMONT YANKEE NUCLEAR POWER CORPORATION,

Petitioner

v.

NATURAL RESOURCES DEFENSE COUNCIL, INC., ET AL.,

Respondents

No. 76-528

CONSUMERS POWER COMPANY,

Petitioner

v.

NELSON AESCHLIMAN, ET AL.,

Respondents

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

BRIEF FOR PETITIONER VERMONT YANKEE NUCLEAR POWER CORPORATION

THOMAS G. DIGNAN, JR.
G. MARSHALL MORIARTY
WILLIAM L. PATTON
R. K. GAD III
225 Franklin Street
Boston, Massachusetts 02110

Of Counsel:
ROPES & GRAY
225 Franklin Street
Boston, Massachusetts 02110

TABLE OF CONTENTS

	Page
TABLE OF CITATIONS	iv
OPINIONS BELOW	1
A. Opinions of the Court of Appeals	1
B. Decisions and Orders of the United States Atomic Energy Commission	2
JURISDICTION	4
STATUTES AND REGULATIONS INVOLVED	4
QUESTIONS PRESENTED FOR REVIEW	4
STATEMENT OF THE CASE	5
A. The Uranium Nuclear Fuel Cycle	5
1. The "Front End" of the Nuclear Fuel Cycle	5
2. The Operation of a Nuclear Reactor and Creation of Radioactive Waste	7
3. The "Back End" of the Nuclear Fuel Cycle	9
B. Description of the Petitioner	11
C. Proceedings Prior to the Court of Appeals' Action	11
1. The Commission Licensing Process — In General	11
2. The Licensing Proceedings for Vermont Yankee	14
3. The Rulemaking Proceedings on the Fuel Cycle	18
D. The Action of the Court of Appeals	23
E. Subsequent Events	25
SUMMARY OF ARGUMENT	28

TABLE OF CONTENTS — Continued

PAGE

ARGUMENT 30

I. THE COURT OF APPEALS ERRED IN HOLDING THAT NEPA REQUIRES THE USE OF PROCEDURES IN AGENCY RULEMAKING PROCEEDINGS BEYOND THOSE REQUIRED BY THE ADMINISTRATIVE PROCEDURE ACT 30

A. THE COMMISSION'S RULEMAKING PROCEDURES COMPLIED WITH, AND EXCEEDED, THE REQUIREMENTS OF THE ADMINISTRATIVE PROCEDURE ACT .. 31

B. THE COURT OF APPEALS WAS WITHOUT AUTHORITY TO REQUIRE ADDITIONAL PROCEDURES 35

II. THE COURT OF APPEALS ERRED IN HOLDING THAT NEPA REQUIRES CONSIDERATION OF REPROCESSING AND WASTE DISPOSAL IN LICENSING PROCEEDINGS FOR INDIVIDUAL NUCLEAR REACTORS 39

III. THE LEGISLATIVE HISTORY OF THE ATOMIC ENERGY ACT, CONTINUING CONGRESSIONAL OVERSIGHT, AND THE ENERGY REORGANIZATION ACT OF 1974 DEMONSTRATE A CONGRESSIONAL DETERMINATION THAT REACTOR LICENSING SHOULD PROCEED PRIOR TO RESOLUTION OF THE WASTE DISPOSAL ISSUE 46

TABLE OF CONTENTS — Continued

PAGE

IV. THE DECISION OF THE COURT OF APPEALS CONSTITUTES A SUBSTITUTION BY THAT COURT OF ITS JUDGMENT FOR THAT OF THE EXPERT COMMISSION IN TECHNICAL MATTERS COMMITTED BY CONGRESS TO THE COMMISSION'S DISCRETION 51

A. INTRODUCTION 51

B. THE ALLEGED GAPS IN THE RULEMAKING RECORD FOUND BY THE COURT OF APPEALS PROVIDE NO BASIS FOR THE RESULT REACHED 52

C. INSOFAR AS THE COURT OF APPEALS' DECISION IS BASED UPON ITS HOLDING THAT DR. PITTMAN'S POSITION UNDERMINED HIS CREDIBILITY, IT IS IN ERROR 58

D. THE RECORD REBUTS THE COURT OF APPEALS' GENERALIZED CRITICISMS OF THE COMMISSION'S RELIANCE ON ITS STAFF INCLUDING DR. PITTMAN 60

V. THE COURT OF APPEALS ERRED IN BASING FINDINGS AND CONCLUSIONS UPON ARTICLES PUBLISHED LONG AFTER THE RULEMAKING CLOSED 65

CONCLUSION 66

BRIEF APPENDIX — STATUTES AND REGULATIONS INVOLVED A-1

Administrative Procedure Act, 5 U.S.C. § 553 ..... A-1

Atomic Energy Act of 1954 (Chapters 1, 16, 17, 19 (§ 251)) A-3

Energy Reorganization Act of 1974 ..... A-25

National Environmental Policy Act of 1969, § 102 .... A-72

10 C.F.R. § 51.20(e) A-75

TABLE OF CITATIONS

Court Cases

	Page(s)
Aberdeen & Rockfish Railroad Co. v. *SCRAP*, 422 U.S. 289 (1975)	38, 50
Aeschliman v. *United States Nuclear Regulatory Commission*, 547 F.2d 622 (D.C. Cir. 1976)	2
American Airlines, Inc. v. *CAB*, 359 F.2d 624 (D.C. Cir.) (*en banc*), *cert. denied*, 385 U.S. 843 (1966)	37
American Trucking Associates, Inc. v. *United States*, 344 U.S. 298 (1953)	30
Bowles v. *Willingham*, 321 U.S. 503 (1944)	37
California Citizens Band Ass'n, Inc. v. *United States*, 375 F.2d 43 (9th Cir.), *cert. denied*, 389 U.S. 844 (1967)	37
Calvert Cliffs' Coordinating Committee, Inc. v. *AEC*, 449 F.2d 1109 (D.C. Cir. 1971)	15, 18, 21, 23, 42
Camp v. *Pitts*, 411 U.S. 138 (1973)	32, 34
Carolina Environmental Study Group v. *United States*, 510 F.2d 796 (D.C. Cir. 1975)	57
Ecology Action v. *AEC*, 492 F.2d 998 (2d Cir. 1974)	57
FPC v. *Florida Power & Light Co.*, 404 U.S. 453 (1972)	60
FPC v. *Transcontinental Gas Corporation*, 423 U.S. 326 (1976)	38, 65-66
International Harvester Co. v. *Ruckelshaus*, 478 F.2d 615 (D.C. Cir. 1973)	37, 61, 64
Kleppe v. *Sierra Club*, 427 U.S. 390 (1976)	29, 38, 43-45, 53
Mobil Oil Corp. v. *FPC*, 483 F.2d 1238 (D.C. Cir. 1973)	37
Natural Resources Defense Council, Inc. v. *United States Nuclear Regulatory Commission*, 547 F.2d 633 (D.C. Cir. 1976)	1-2, 14, 19, 23-25, 31, 35-39, 42, 43, 51-58, 62-65
NLRB v. *Pittsburgh S.S. Co.*, 337 U.S. 656 (1949)	60
Office of Communication of the United Church of Christ v. *FCC*, 425 F.2d 543 (D.C. Cir. 1969)	64
Pell v. *Procunier*, 417 U.S. 817 (1974)	59

	Page(s)
Portland Cement Ass'n v. *Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973), *cert. denied*, 417 U.S. 921 (1974)	59
Power Reactor Development Co. v. *International Union of Electrical, Radio and Machine Workers, AFL-CIO*, 367 U.S. 396 (1961)	9, 46, 50
Saxbe v. *Washington Post Co.*, 417 U.S. 843 (1974)	59
Scientists' Institute for Public Information, Inc. (SIPI) v. *AEC*, 481 F.2d 1079 (D.C. Cir. 1973)	23, 42
Siegel v. *AEC*, 400 F.2d 778 (D.C. Cir. 1968)	30
Texas & Pacific Railway Co. v. *Carlin*, 189 U.S. 355 (1903)	59
Train v. *Colorado Public Interest Research Group*, 426 U.S. 1 (1976)	50
United States v. *Allegheny-Ludlum Steel Corp.*, 406 U.S. 742 (1972)	30, 35, 37, 38
United States v. *Florida East Coast Railway Co.*, 410 U.S. 224 (1973)	30, 34, 35, 37, 38
United States v. *SCRAP*, 412 U.S. 669 (1973)	38
Walter Holm & Co. v. *Hardin*, 449 F.2d 1009 (D.C. Cir. 1971)	37

AEC (NRC) Cases

Consumers Power Company (Midland Plant, Units 1 & 2), CLI-74-15, 7 AEC 311 (1974)	3
Consumers Power Company (Midland Plant, Units 1 & 2), CLI-74-8, 7 AEC 149 (1974)	3
Consumers Power Company (Midland Plant, Units 1 & 2), CLI-74-7, 7 AEC 147 (1974)	3
Consumers Power Company (Midland Plant, Units 1 & 2), CLI-74-5, 7 AEC 19 (1974)	3
Consumers Power Company (Midland Plant, Units 1 & 2), ALAB-160, 6 AEC 1002 (1973)	3

PAGE(S)

Consumers Power Company (Midland Plant, Units 1 & 2), ALAB-123, 6 AEC 331 (1973) 3

Consumers Power Company (Midland Plant, Units 1 & 2), ALAB-106, 6 AEC 182 (1973) 3

Consumers Power Company (Midland Plant, Units 1 & 2), ALAB-101, 6 AEC 60 (1973) 3

Consumers Power Company (Midland Plant, Units 1 & 2), ALAB-60, 5 AEC 261 (1972) 2, 16

Consumers Power Company (Midland Plant, Units 1 & 2), LBP-72-34, 5 AEC 214 (1972) 3

Duke Power Company (Catawba Nuclear Station, Units 1 & 2), ALAB-355, NRCI-76/10 397 (Oct. 29, 1976) 13

Long Island Lighting Company (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831 (1973) 16

Long Island Lighting Company (Shoreham Nuclear Power Station), ALAB-99, 6 AEC 53 (1973) 16

Mississippi Power and Light Company (Grand Gulf Nuclear Station, Units 1 & 2), ALAB-130, 6 AEC 423 (1973) 13

Northern States Power Company (Prairie Island Nuclear Generating Plant, Units 1 & 2), ALAB-107, 6 AEC 188, *reconsid. denied*, ALAB-110, 6 AEC 247, *affirmed*, CLI-73-12, 6 AEC 241 (1973) 13

The Detroit Edison Company (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-77, 5 AEC 315 (1972) 13

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), CLI-77-10, 5 NRC —, 2 CCH NUCLEAR REG. RPTR. ¶ 30,171 (April 1, 1977) ... 27

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), CLI-76-18, NRCI-76/11 470 (Nov. 5, 1976) 26

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-179, 7 AEC 159 (1974) 2, 17

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-72, 5 AEC 297 (1972) 16

PAGE(S)

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-56, 4 AEC 930 (1972) 2, 15, 17, 40, 41

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), LBP-73-8, 6 AEC 130 (1973) 17

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), Initial Decision, 4 AEC 776 (1972) 14, 15

STATUTES

Administrative Procedure Act, 5 U.S.C. § 551 *et seq.* 37, 38, 58

5 U.S.C. § 553 (Section 4) 4, 5, 28, 30, 31, 34, 35, 37, 38

5 U.S.C. § 553 (b) (Section 4(b)) 31

5 U.S.C. § 553(c) (Section 4(c)) 31

5 U.S.C. § 556 (Section 7) 37, 38

5 U.S.C. § 557 (Section 8) 37, 38

Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2011 *et seq.* 4, 12, 30, 47

42 U.S.C. § 2016 (Section 251) 46

42 U.S.C. § 2039 (Section 29) 12

42 U.S.C. § 2232(b) (Section 182(b)) 12

42 U.S.C. § 2235 (Section 185) 13

42 U.S.C. § 2239 (Section 189) 12, 13

42 U.S.C. § 2239(a) (Section 189(a)) 30

42 U.S.C. § 2241 (Section 191) 12

42 U.S.C. § 2242 (Section 192) 17

42 U.S.C. § 2252 (Section 202) 46

Energy Reorganization Act of 1974, as amended, 42 U.S.C. § 5801 *et seq.* 2, 4, 48, 49

42 U.S.C. § 5841 *et seq.* (Section 201 *et seq.*) 2, 49

Interstate Commerce Act, § 1(14)(a), P.L. 89-430, 80 Stat. 168 34

National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 *et seq.* 4, 5, 23, 24, 38, 40, 42, 45-47, 49-51, 53, 56, 58

42 U.S.C. § 4332(2) (Section 102(2)) 4

PAGE(S)

Judicial Code, 28 U.S.C. § 1 *et seq.*

28 U.S.C. § 1254 4
28 U.S.C. § 2341 13
28 U.S.C. § 2342 17
28 U.S.C. § 2343 17
28 U.S.C. § 2350 ..... 4, 13

REGULATIONS

10 C.F.R. Part 2 12
10 C.F.R. § 2.101(a)(1) 11
10 C.F.R. § 2.101(a)(2) 11
10 C.F.R. § 2.721 12
10 C.F.R. § 2.760 12
10 C.F.R. § 2.762 ..... 3, 12
10 C.F.R. § 2.764 12
10 C.F.R. § 2.764(a) 12
10 C.F.R. § 2.785 3
10 C.F.R. § 2.785(a) 12
10 C.F.R. § 2.786 ..... 3, 13
10 C.F.R. § 50.34 11
10 C.F.R. Part 51 11
10 C.F.R. § 51.20(e) 4, 21

CONGRESSIONAL HEARINGS

Hearings on Assessing the Policies, Plans, and Programs of the Executive Branch and the Nuclear Regulatory Commission for the Safe Storage and Disposal of Radioactive Wastes Produced in the Commercial Nuclear Fuel Cycle Before the Subcomm. on Environment and Safety of the Joint Comm. on Atomic Energy, 94th Cong., 2d Sess. (1976) 9, 10, 49, 54

Hearings on S. 2135, S. 2744 Before the Subcomm. on Reorganization, Research and International Organization of the Senate Comm. on Government Operations, 93d Cong., 2d Sess. (1974) 48

PAGE(S)

Hearings on S. 2744 Before the Subcomm. on Reorganization, Research, and International Organizations of the Senate Comm. on Government Operations, 93d Cong., 1st Sess. (1973) 48

Hearings on H.R. 13731, H.R. 13732 Before the Joint Comm. on Atomic Energy, 92d Cong., 2d Sess., Pt. 1 (1972) 48

Hearings on Physical Research, Space Nuclear, and Nuclear Waste Management Progress Before the Joint Committee on Atomic Energy, 92d Cong., 1st Sess., Pt. 3 (1971) .. 48

Hearings on Environmental Effects of Producing Electric Comm. on Atomic Energy, 91st Cong., 2d Sess., Pt. 3 (1970) 48

Hearings on Environmental Effects of Producing Electric Power Before the Joint Comm. on Atomic Energy (Oct. 28, 29, 30, 31; Nov. 5, 6, 7, 1969; Jan. 27, 28, 29, 30; Feb. 24, 25, 29, 1970), 91st Cong., 1st Sess., Pts. 1 and 2 (1970) 48

Hearings on Industrial Radioactive Waste Disposal Before the Special Subcomm. on Radiation of the Joint Comm. on Atomic Energy, 86th Cong., 1st Sess. (1959) (5 Vols.) 47

AEC (NRC) PROMULGATIONS

Nuclear Regulatory Commission, Dkt. No. RM-50-3, Environmental Effects of the Uranium Fuel Cycle, Notice of Reopened Hearing, 42 Fed. Reg. 26987 (May 26, 1977) . 27

Nuclear Regulatory Commission, Uranium Fuel Cycle Impacts from Spent Fuel Reprocessing and Radioactive Waste Management, 42 Fed. Reg. 13803 (March 14, 1977) 27

Nuclear Regulatory Commission, Supplemental General Statement of Policy, 41 Fed. Reg. 49898 (Nov. 11, 1976) 26

Nuclear Regulatory Commission, Uranium Fuel Cycle Impacts from Spent Fuel Reprocessing and Radioactive Waste Management, 41 Fed. Reg. 45849 (Oct. 18, 1976) . 26

Nuclear Regulatory Commission, Environmental Effects of the Uranium Fuel Cycle — General Statement of Policy, 41 Fed. Reg. 34707 (Aug. 16, 1976) 25, 26

	Page(s)
Atomic Energy Commission, Environmental Effects of the Uranium Fuel Cycle, 39 Fed. Reg. 14188 (April 22, 1974)	3, 21
Atomic Energy Commission, Dkt. No. RM-50-3, Environmental Effects of the Uranium Fuel Cycle, Notice of Hearing, 38 Fed. Reg. 49 (Jan. 3, 1973)	3, 18
Atomic Energy Commission, Environmental Effects of the Uranium Fuel Cycle, Notice of Proposed Rulemaking, 37 Fed. Reg. 24191 (Nov. 15, 1972)	3, 18
Miscellaneous	
100 Cong. Rec. 14044-45 (Aug. 17, 1954)	47
Glasstone, Sourcebook on Atomic Energy (3d ed. 1967)	8
H. Conf. Rep. No. 93-1445, 93d Cong., 2d Sess., 3 1974 U.S. Code Cong. & Ad. News 5538	49
Joint Comm. on Atomic Energy, 91st Cong., 1st Sess., Selected Materials on Environmental Effects of Producing Electric Power (Comm. Print 1969)	48
Message from the President, H.R. Doc. No. 328, 83d Cong., 2d Sess. 7 (1954)	46
13 Pres. Doc. 560 (Apr. 25, 1977)	27
13 Pres. Doc. 566 (Apr. 25, 1977)	27
Proposed Annex to 10 C.F.R. 50, App. D, 36 Fed. Reg. 22851 (Dec. 1, 1971)	57
S. Rep. No. 93-980, 93d Cong., 2d Sess., 3 1974 U.S. Code Cong. & Ad. News 5470	49

In The

Supreme Court of the United States

October Term, 1976

No. 76-419

VERMONT YANKEE NUCLEAR POWER CORPORATION,

Petitioner

v.

NATURAL RESOURCES DEFENSE COUNCIL, INC., et al.,

Respondents

No. 76-528

CONSUMERS POWER COMPANY,

Petitioner

v.

NELSON AESCHLIMAN, et al.,

Respondents

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

BRIEF FOR PETITIONER VERMONT YANKEE NUCLEAR POWER CORPORATION

OPINIONS BELOW

A. Opinions of the Court of Appeals

These consolidated cases involve review of two decisions of the United States Court of Appeals for the District of Columbia Circuit. In *Vermont Yankee Nuclear Power Corp.* v. *Natural Resources Defense Council, Inc.*, No. 76-419, the opinion below was styled *Natural Resources Defense Coun-*

cil, Inc. v. *United States Nuclear Regulatory Commission.* The opinion, together with separate statements by Chief Judge Bazelon and Judge Tamm, was issued on July 21, 1976, *App.* 28-86, and corrected by an order of the Court of Appeals issued on October 8, 1976, *App.* 87-88. The opinion as corrected is reported at 547 F.2d 633. The uncorrected version of the opinion is unofficially reported at 9 ERC 1149.

In *Consumers Power Company* v. *Aeschliman,* No. 76-528, the opinion below was styled *Aeschliman* v. *United States Nuclear Regulatory Commission.* This opinion also was issued on July 21, 1976. *App.* 89-111. It is officially reported at 547 F.2d 622; it is unofficially reported at 9 ERC 1289.

B. Decisions and Orders of the United States Atomic Energy Commission

The decisions, orders, and promulgations of the then United States Atomic Energy Commission (AEC) (now the United States Nuclear Regulatory Commission (NRC))[1] which were on review in the Court of Appeals are all officially reported as follows:

1. Decisions in *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), AEC Dkt. No. 50-271:

   ALAB-56, 4 AEC 930 (1972). *App.* 112-29.

   ALAB-179, 7 AEC 159 (1974). *App.* 130-72.

2. Decisions in *Consumers Power Company* (Midland Plant, Units 1 & 2), AEC Dkt. Nos. 50-329, 50-330:

   ALAB-60, 5 AEC 261 (1972). *App.* 173-83.

[1] The AEC was abolished by the Energy Reorganization Act of 1974, 42 U.S.C. §§ 5801 *et seq.*, and its licensing and regulatory functions were transferred to NRC, 42 U.S.C. § 5841 *et seq.* The word "Commission" is used in this brief to refer to both AEC and NRC.

LBP-72-34, 5 AEC 214 (1972). *App.* 184-222.

ALAB-101, 6 AEC 60 (1973). *App.* 223-40.

ALAB-106, 6 AEC 182 (1973). *App.* 241-53.

ALAB-123, 6 AEC 331 (1973). *App.* 254-321.

ALAB-160, 6 AEC 1002 (1973). *App.* 322-23.

CLI-74-5, 7 AEC 19 (1974). *App.* 324-45.

CLI-74-7, 7 AEC 147 (1974). *App.* 346-47.

CLI-74-8, 7 AEC 149 (1974). *App.* 348-49.

CLI-74-15, 7 AEC 311 (1974). *App.* 350-51.[2]

3. AEC Rulemaking Orders:

   Atomic Energy Commission, Environmental Effects of the Uranium Fuel Cycle, Notice of Proposed Rule Making, 37 Fed. Reg. 24191 (Nov. 15, 1972). *App.* 352-60.

   Atomic Energy Commission, Dkt. No. RM-50-3, Environmental Effects of the Uranium Fuel Cycle, Notice of Hearing, 38 Fed. Reg. 49 (Jan. 3, 1973). *App.* 361-63.

   Atomic Energy Commission, Environmental Effects of the Uranium Fuel Cycle, 39 Fed. Reg. 14188 (April 22, 1974). *App.* 385-400.

[2] "LBP" denotes a decision by an Atomic Safety and Licensing Board which is the "trial court" in the Commission's administrative process. Licensing Board decisions are appealable as of right to (and in any event are reviewed, in the absence of appeal, *sua sponte* by) the Atomic Safety and Licensing Appeal Board. 10 C.F.R. §§ 2.762, 2.785. "ALAB" denotes a decision by the Appeal Board. Appeal Board decisions become final action of the Commission upon the passage of 20 days unless the Commission decides on its own motion to review the Appeal Board decision. 10 C.F.R. § 2.786. "CLI" denotes a decision of the Commission.

JURISDICTION

The judgments of the Court of Appeals were entered on July 21, 1976. The petition for certiorari in *Vermont Yankee,* No. 76-419, was filed on September 21, 1976. The petition for certiorari in *Consumers Power,* No. 76-528, was filed on October 14, 1976. The petitions were granted and the cases consolidated by order of this Court on February 22, 1977. This Court's jurisdiction is invoked under 28 U.S.C. § 1254 and 28 U.S.C. § 2350.

STATUTES AND REGULATIONS INVOLVED

The case involves the statutes and regulations listed below, the relevant portions of which are set forth in the Appendix to this Brief (*Br. App.*).

1. The Administrative Procedure Act, Section 4, 5 U.S.C. § 553. *Br. App.* A-1 - A-2.
2. The Atomic Energy Act of 1954, as amended, 42 U.S.C. §§ 2011 *et seq. Br. App.* A-3 - A-24.
3. The Energy Reorganization Act of 1974, as amended, 42 U.S.C. §§ 5801 *et seq. Br. App.* A-25 - A-71.
4. The National Environmental Policy Act of 1969, Section 102, 42 U.S.C. § 4332(2). *Br. App.* A-72 - A-74.
5. 10 C.F.R. § 51.20(e). *Br. App.* A-75 - A-76.

QUESTIONS PRESENTED FOR REVIEW

This brief is filed on behalf of the petitioner in *Vermont Yankee,* No. 76-419, and addresses only the issues raised in that petition.

1. Did the Court of Appeals err in holding that the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 *et seq.,* imposes procedural requirements upon agency

rulemaking beyond those required by Section 4 of the Administrative Procedure Act, 5 U.S.C. § 553?

2. Did the Court of Appeals err in holding that NEPA makes licensing of nuclear power reactors in the United States contingent upon "thorough ventilation" of the environmental effects of nuclear fuel reprocessing and waste disposal by the Nuclear Regulatory Commission?

3. Did the Court of Appeals improperly substitute its judgment for that of the Nuclear Regulatory Commission on issues committed to that agency's discretion?

4. Did the Court of Appeals err in its review of the Nuclear Regulatory Commission's rulemaking proceeding in basing certain findings upon materials not in the agency record and published after the rulemaking proceeding had terminated?

STATEMENT OF THE CASE

A. The Uranium Nuclear Fuel Cycle

The term "fuel cycle" refers to the entire course of events which is involved in manufacturing, using, and disposing of the residue from, the fuel for a nuclear reactor. The fuel cycle includes a "front end" and a "back end." The "front end" comprises all events which precede the loading of the fuel into the reactor. The "back end" consists of the events after the spent fuel is shipped from the reactor site.

1. The "Front End" of the Nuclear Fuel Cycle

The "front end" of the uranium nuclear fuel cycle begins with the mining of uranium ore. *App.* 540. Most uranium reserves in the United States are located in the States of New Mexico, Wyoming, Texas, Colorado, and Utah. *App.* 576. After the ore is mined it is shipped to a milling facility, which

is licensed by the Commission,[3] where the raw ore is milled and refined to produce a uranium concentrate (U_3O_8), generally referred to as "yellowcake." *App.* 540, 578, 632. The yellowcake is then shipped to another facility, separately licensed by the Commission, which converts the yellowcake into uranium hexafluoride gas (UF_6) for use in a subsequent "enrichment process." *App.* 540, 634. The UF_6 gas is in turn shipped to a government owned, *App.* 964, enrichment facility where, by a gaseous diffusion process, the percentage of the fissile uranium isotope U^{235} is increased beyond that found in natural deposits of uranium.[4] *App.* 540, 576, 636. The UF_6 gas, the uranium in which is now enriched, is then shipped to a fuel fabricator — yet another separately licensed facility — where the gas is converted to a solid uranium compound, uranium dioxide (UO_2). *App.* 540, 578-79. If the fuel is intended for use in a nuclear reactor such as that which powers the electric generating station owned by petitioner, Vermont Yankee Nuclear Power Corporation (Vermont Yankee), the UO_2 is next shaped into pellets. The pellets are encapsulated in rods; the rods are then fabricated into "assemblies," *i.e.*, groups of rods (with the rods in each group standing on end and held in a square configuration, neighboring rods being equidistant one from another) for use in the reactor. *App.* 534. These events — from

[3] All facilities which are utilized in the fuel cycle after the mining of the raw ore are either government licensed or government controlled or licensed by states under programs approved by the federal government. *App.* 758, 802-803, 914.

[4] In nature over 99.2% of the element uranium (Atomic No. 92) is the isotope having an Atomic Weight of 238 (U^{238}), *i.e.*, 92 protons and 146 neutrons. Approximately 0.7% of the element is the isotope having an Atomic Weight of 235 (U^{235}), *i.e.*, 92 protons and 143 neutrons. U^{238} is not "fissile" or readily fissionable; U^{235} is. Thus, it is necessary to "enrich" the natural uranium by increasing the percentage of the U^{235} to between two and five percent. *See App.* 900-901.

the mine to the fabrication of fuel assemblies — constitute the "front end" of the fuel cycle, *i.e.*, the processes and activities which precede use in the reactor.

2. The Operation of a Nuclear Reactor and Creation of Radioactive Waste

The vast majority of the commercial nuclear electric power plants in the United States are powered, like Vermont Yankee's, by so-called light-water reactors (reactors).[5] *App.* 540. As indicated above, the basic fuel for most present generation reactors is U^{235} which is contained in pellets of uranium dioxide.[6] The result of the fission (splitting) of the nucleus of a U^{235} atom is the creation of fission products, free neutrons, and energy in the form of heat. The heat so created is used to make steam which in turn drives a turbogenerator, producing electricity.

Fission products are the two (or possibly more) "pieces" of the split atom. They are themselves other elements which may or may not be radioactive, depending upon which isotopes of which elements they are. Some fission products are highly radioactive and remain so for long periods of time.[7]

[5] The term "light-water" refers to the fact that normal water (H_2O) is used as the "moderator" (*i.e.*, device for slowing down neutrons) and also as the heat transfer medium for cooling the reactor.

[6] A reactor need not necessarily be fueled by U^{235}. Pu^{239} or isotopes of Thorium or any other fissile isotope theoretically can be used. *See* p. 9 *infra.*

[7] The length of time a given radioactive element remains radioactive depends upon its rate of decay and what it decays to. All radioactive elements decay over time. The rate of decay is measured in "half-lives"; a half-life being the time necessary for half of the atoms in a radioactive substance to decay to another nuclear form. The "daughter" element (*i.e.*, form decayed to) may or may not be itself radioactive. If it is, a new decay process is started and

The number of "free" neutrons produced as a result of a given fission cannot be predicted because it depends in the first instance upon the stability of the fission products produced[8]. At a constant power level only one neutron per fission is necessary to split another U^{235} nucleus and sustain the nuclear chain reaction. The remaining free neutrons either remain free or are absorbed into the nucleii of other elements present. Some of these neutrons are absorbed by the more abundant nonfissile U^{238} nucleii which results in the creation of an isotope of Plutonium (PU^{239}).[9] Pu^{239} has an extremely long half-life (*see* note 7 *supra*) of 25,000 years. *App.* 894. Being an "alpha emitter," it is not a particularly dangerous element from a radioactive emissions point of view[10] unless ingested into the human body. *App.* 1169-

a new "half-life" is involved. Half-lives have been measured by scientists and vary (depending upon the isotope involved) from millionths of seconds to billions of years.

[8] The average number per fission of U^{235} is 2.43. GLASSTONE, SOURCEBOOK ON ATOMIC ENERGY, §§13.41, 13.42 (3d ed. 1967).

[9] The capture of a free neutron by a U^{238} nucleus results in the creation of a new uranium isotope U^{239} which is radioactive. U^{239} decays through the emission of "beta" particles (electrons which are negatively charged). This is accompanied by the conversion of a neutron to a proton. The effect of the beta emission is thus to move up the atomic number of the nucleus by 1. Thus, U^{239} "decays" to an isotope of Neptunium (Atomic Number 93). The isotope is Np^{239}. Np^{239} is also a "beta" emitter and decays to the isotope of Plutonium (Atomic Number 94) known as Pu^{239}. GLASSTONE, *supra* note 8 at §§ 8.50-8.56, 11.49. The decay of U^{239} and Np^{239} is rapid, their half-lives being 23.5 minutes and 2.35 days, respectively. *Id.* § 16.26. Some of the Pu^{239} also fissions in the reactor after it is created and contributes to the energy production of the fuel wherein it is created.

[10] An alpha particle is the equivalent of a helium nucleus (*i.e.*, two protons and two neutrons). Alpha radiation has little penetrating power. It will not penetrate a rubber glove. GLASSTONE, *supra* note 8, § 18.60.

71. Pu^{239} is, like U^{235}, fissile and can be utilized as a reactor fuel. It is one of the isotopes which would be recovered in reprocessing and reused. Indeed, Pu^{239} is the fuel "created" by the breeder reactor.[11] Thus, while the plutonium created is sometimes referred to as "waste," see *App.* 33-34, it is not a "waste" which the electric industry desires to dispose of or store permanently;[12] rather it is a valuable fuel resource which may be utilized to produce electricity in the future.[13]

As a result of the fission process, spent fuel elements, when removed from the reactor, contain, *inter alia*, fission products, some U^{235} which has not fissioned, Pu^{239}, and U^{238}. *App.* 422-23. After removal from the reactor, the spent fuel is placed in a "spent fuel pool" which is part of the reactor installation analyzed under NEPA and the Atomic Energy Act in the individual reactor licensing proceeding. *App.* 535.

3. The "Back End" of the Nuclear Fuel Cycle.

The events which take place after shipment of the fuel from the site are collectively known as the "back end" of the fuel cycle. When the matters at bar were before the Com-

[11] *See Power Reactor Development Co.* v. *International Union of Electrical, Radio and Machine Workers, AFL-CIO*, 367 U.S. 396 (1961).

[12] *Hearings on Assessing the Policies, Plans, and Programs of the Executive Branch and the Nuclear Regulatory Commission for the Safe Storage and Disposal of Radioactive Wastes Produced in the Commercial Nuclear Fuel Cycle Before the Subcomm. on Environment and Safety of the Joint Comm. on Atomic Energy*, 94th Cong. 2d Sess. at 26 (1976).

[13] The Commission now has pending proceedings with respect to the question of whether reactors should be licensed to utilize Pu^{239} as fuel. As of this writing, it is unclear what ultimate effect the President's recently announced policy to discourage the recovery of Pu^{239}, *see* p. 27, *infra*, will have on these proceedings.

mission, the expectation was that the spent fuel, after a period of three to four months in the spent fuel pool, would be shipped to a separately licensed fuel reprocessing facility. *App.* 416. The reprocessor would then, by various processes, separate and recover elements contained in the spent fuel which could be reused in the fuel manufacturing process.[14] *App.* 585-86. Left over from the reprocessing would be "high-level waste," consisting for the most part of fission products. This high-level waste was then to be shipped to Commission waste management sites for long-term management or "disposal." *App.* 610.

At this time, however, no reprocessing facilities are operating in the United States. High-level wastes from past reprocessing operations are now stored in temporary facilities. The spent fuel removed from reactors since the cessation of reprocessing is, for the most part, being stored in spent fuel pools at the various power reactor sites.

The total amount of high-level radioactive waste stored in temporary facilities in the United States as of May, 1976, was 76,600,000 gallons.[15] The vast majority of this waste, 99% (or 76,000,000 gallons), was created not by electric power generation but as a result of the United States Government's weapons program.[16] Indeed, it is currently projected that as of the year 2000 the waste created as a result of power plant operation will constitute only approximately ten per cent of the total high-level waste requiring management.[17] *See* also *App.* 1065, 1079.

---

[14] U^{235}, Pu^{239} and U^{238}.

[15] *Hearings on Assessing the Policies, Plans, and Programs of the Executive Branch and the Nuclear Regulatory Commission for the Safe Storage and Disposal of Radioactive Wastes Produced in the Commercial Nuclear Fuel Cycle, supra* n. 12 at 123-24.

[16] *Id.*

[17] *Id.*

While the technology exists to permit the safe storage of the high-level wastes, *App.* 830-32, the Commission has yet to select the optimum "long-term" solution to the management of high-level waste from among the available alternatives, *see* note 56 *infra.* Several solutions have been proposed including construction of an above-ground engineered facility, burial in salt deposits, and short-term (100 years) use of a retrievable waste storage facility while final long-term technologies are developed. *See* pp. 20, 52-57 *infra.*

B. Description of the Petitioner

Vermont Yankee, petitioner in No. 76-419, is a Vermont corporation. Vermont Yankee is the owner of Vermont Yankee Nuclear Power Station (the Station). The Station is a nuclear electric generating station, *App.* 405, located in the Town of Vernon, Vermont, on the west bank of the Connecticut River. *App.* 401. The Station is the largest single electric generating source of energy in the State of Vermont. It is one of seven nuclear generating units now operating in New England, which units produced over 30% of the electric energy used last year in the region.

C. Proceedings Prior to the Court of Appeals' Action

1. The Commission Licensing Process — In General

The licensing process which a nuclear power plant goes through is tortuous and lengthy. It begins with the filing of an application for a construction permit. Typical applications now consist of twenty or more three-inch thick volumes of data covering myriad safety and environmental matters. *See* 10 C.F.R. § 50.34; 10 C.F.R. Part 51. After a preliminary review of the application by the Commission's staff, 10 C.F.R. § 2.101(a)(1), the application is then docketed if the preliminary review reveals *prima facie* compliance with Commission Regulations governing the form of applications. 10 C.F.R. § 2.101(a)(2). Then commences a detailed review by the Commission staff which typically takes

eighteen to twenty-four months. In addition, the safety aspects of the design are reviewed and commented upon by the Advisory Committee on Reactor Safeguards, a statutorily created group of outstanding technical experts in the various disciplines involved in nuclear technology. 42 U.S.C. §§ 2039, 2232(b).

The Atomic Energy Act of 1954 requires that a public hearing be held before a construction permit can issue. 42 U.S.C. § 2239. Under Commission Regulations, 10 C.F.R. Part 2, these hearings are conducted by an Atomic Safety and Licensing Board (Licensing Board) composed of three members, typically a lawyer chairman and two technically trained members. 42 U.S.C. § 2241; 10 C.F.R. § 2.721. The Licensing Board hearings are, in the fullest sense, adversary or trial-type proceedings with full rights of cross-examination, discovery, and all the other appurtenances of a courtroom proceeding. After such a hearing the Licensing Board issues an "Initial Decision" which, if favorable to the applicant, authorizes the issuance of a construction permit.[18] 10 C.F.R. § 2.760. For many years the Commission's Regulations have provided that a Licensing Board's initial decision will be immediately effective and the authorized permit will issue unless the Licensing Board or the Commission's Atomic Safety and Licensing Appeal Board (Appeal Board) finds good cause for ordering otherwise. 10 C.F.R. § 2.764(a).

Exceptions to the Licensing Board decision may be taken to an Appeal Board by any party. 10 C.F.R. §§ 2.762, 2.785(a). And, whether or not exceptions are taken, the Appeal Board, in any event, conducts a *sua sponte* review of

[18] The Licensing Board does not itself issue permits or licenses; these are issued by the Director of Regulation upon Licensing Board authorization. 10 C.F.R. § 2.764.

the decision.[19] The Appeal Board has all of the powers of review of the Commission including the right to substitute its judgment for that of the Licensing Board.[20] Finally, further review of the decision may be had by the Commission on its own motion. 10 C.F.R. § 2.786. If no review is taken, however, the Appeal Board's decision constitutes final agency action after 20 days have elapsed. *Id.* Assuming some party still deems itself aggrieved, review is available in the Courts of Appeals, 28 U.S.C. §§ 2341 *et seq.*, and finally in this Court by way of a petition for a writ of certiorari, 28 U.S.C. § 2350.

Once the plant is constructed the utility must then apply for an operating license. 42 U.S.C. § 2235. Again, the staff carries out extensive review of the operating license application, concentrating in particular on changes in design which have occurred during the construction process. A public hearing is not mandated by statute on an operating license application, but the Commission must grant a hearing if any party with an interest requests one.[21] The result is a second set of proceedings through the Licensing Board "trial", the Appeal Board, the Commission and the courts.

[19] *E.g., The Detroit Edison Company* (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-77, 5 AEC 315 (1972).

[20] *E.g., Duke Power Company* (Catawba Nuclear Station, Units 1 & 2), ALAB-355, NRCI-76/10 397, 403 (Oct. 29, 1976).

[21] 42 U.S.C. § 2239. As a matter of practice, the Commission grants hearings virtually upon request. The Commission has held, for example, that anyone who lives within 40 miles of a reactor has "standing" to request a hearing. *E.g., Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 & 2), ALAB-107, 6 AEC 188, 190, *reconsid. denied*, ALAB-110, 6 AEC 247, *affirmed*, CLI-73-12, 6 AEC 241 (1973). All such a person need do in addition is allege one contention cognizable under the Atomic Energy Act or NEPA to require a hearing. *E.g., Mississippi Power and Light Company* (Grand Gulf Nuclear Station, Units 1 & 2), ALAB-130, 6 AEC 423, 424 (1973).

While in past years this entire process was somewhat shorter, *see* pp. 14-17 *infra*, today it has reached a state where the accepted wisdom is that 10 years from the construction permit application date must be allowed to bring a nuclear power plant into commercial operation although the actual construction requires only five to six years.

2. The Licensing Proceedings for Vermont Yankee

Vermont Yankee first made application to the Commission for a construction permit for the Station over ten years ago on December 2, 1966. After an adjudicatory hearing before a Licensing Board the construction permit was granted on December 11, 1967. *App.* 112 n. 1.

On December 31, 1969, Vermont Yankee made application for the operating license for the Station. *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), Initial Decision, 4 AEC 776 n. 1 (1972). Adjudicatory hearings were requested by several "intervenors" including respondents Natural Resources Defense Council and New England Coalition on Nuclear Pollution.[22] The Commission granted a hearing and after various pretrial proceedings, the hearing was commenced on August 10, 1971, before a Licensing Board.

[22] The third respondent in No. 76-419, Consolidated National Intervenors, Inc., is an umbrella organization which includes in its membership the respondents Natural Resources Defense Council, Inc., and New England Coalition on Nuclear Pollution. Consolidated National Intervenors, Inc., participated in the Commission's rulemaking proceeding described at pp. 18-23 *infra*, and spoke for itself and the other two respondents in that proceeding. As noted by the Court of Appeals, *App.* 30-31 n. 2; 547 F.2d at 637 n. 2, these three organizations (petitioners in that court) adopted essentially the same position on almost all issues. In light of this and the fact that distinctions among these organizations are not material to any issue in this case, they, and each of them, are referred to herein as "intervenors."

During the pretrial phase of the *Vermont Yankee* operating license hearing, the intervenors sought information about fuel reprocessors and high-level waste disposal operations. *App.* 417-18, 481-83. Vermont Yankee objected on the grounds that such activities, which would be the subject of intense scrutiny in separate licensing proceedings for reprocessing or disposal facilities, were not a relevant subject of inquiry in a power plant licensing proceeding. The Licensing Board sustained Vermont Yankee's objection, *App.* 410, and adhered to this position despite a motion for reconsideration. *App.* 485-87.

On August 10, 1971, after the decision of the United States Court of Appeals for the District of Columbia Circuit in *Calvert Cliffs' Coordinating Committee, Inc.* v. *AEC*, 449 F.2d 1109 (D.C. Cir. 1971), the intervenors renewed their efforts to raise waste reprocessing and disposal questions in the *Vermont Yankee* licensing proceeding. Once again, on October 21, 1971, the Licensing Board adhered to its prior ruling. *App.* 517. In this instance, however, the Licensing Board authorized an interlocutory appeal of its ruling.[23] *Id.*

On June 6, 1972, the Appeal Board ruled on the intervenors' interlocutory appeal. *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), ALAB-56, 4 AEC 930 (1972). *App.* 112-29. The Appeal Board[24] sustained the Licensing Board. It reasoned

[23] While this interlocutory appeal was pending, Vermont Yankee sought and, on March 14, 1972, obtained a testing license to operate the Station at no more than 1% power. *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), Initial Decision, 4 AEC 776 (1972). Thereafter, the Station operated in accordance with the license limits, creating the first nuclear waste in the reactor. The intervenors did not appeal this Licensing Board decision administratively or to the courts.

[24] Like the Licensing Board, the *Vermont Yankee* Appeal Board consisted of a lawyer chairman and two nuclear engineers.

that, since the only "proposed action" before the agency was the licensing of the Station to operate, NEPA did not require exploration of the environmental effects of reprocessing or disposal facilities which would be the subject of separate licensing proceedings. *App.* 116-22. Further, the Appeal Board observed that given the nature of the nuclear fuel cycle and the industry itself, any exploration of the environmental effects of the back end of the fuel cycle in the context of a single reactor's operating license proceeding would be neither meaningful nor possible. *App.* 120. In addition, the Appeal Board held that sustaining the intervenors' position on the breadth of reactor licensing proceedings ". . . could as a practical matter call a halt to the licensing of individual reactors." *App.* 123.

After this interlocutory ruling of its Appeal Board, the Commission consistently followed the doctrine thus established. The issues of reprocessing and waste disposal were excluded from other licensing cases and, in addition, similar issues arising out of the "front end" of the fuel cycle (mining, milling, and fabrication) were also excluded. *See, e.g., Consumers Power Company* (Midland Plant, Units 1 & 2), ALAB-60, 5 AEC 261 (1972);[25] *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), ALAB-72, 5 AEC 297 (1972); *Long Island Lighting Company* (Shoreham Nuclear Power Station), ALAB-99, 6 AEC 53 (1973); *Long Island Lighting Company* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831 (1973).[26]

[25] The Court of Appeals' decision striking down the Commission action in the *Midland* case is the subject of the case consolidated with this one, *Consumers Power*, No. 76-528.

[26] The action of the Court of Appeals in remanding the Commission order in the *Shoreham* proceeding is the subject of a petition for certiorari now pending in this Court. *Long Island Lighting Co.* v. *The Lloyd Harbor Study Group, Inc.*, No. 76-745. The Court of Appeals in that case decided the matter by a *per curiam* order which relied, without further discussion, on the decisions under review in Nos. 76-419 and 76-528.

On October 12, 1972, the Commission issued to Vermont Yankee a full power temporary operating license for the Station.[27] *App.* 131 n. 1. The intervenors did not seek judicial review of this Commission action in the courts. At the same time, the hearings on the Station's full term operating license continued apace.

On February 27, 1973, the Licensing Board in the Vermont Yankee licensing proceeding issued its decision authorizing issuance of the full power, full term operating license. *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), LBP-73-8, 6 AEC 130 (1973). Exceptions from this decision were taken to the Appeal Board by the intervenors and on February 28, 1974, the Appeal Board issued a decision affirming the Licensing Board decision as modified in respects not here material. *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), ALAB-179, 7 AEC 159 (1974). *App.* 130-72. In this decision, as in other licensing cases, the Appeal Board adhered to its prior rulings in the *Vermont Yankee* interlocutory appeal (ALAB-56) that the issues of reprocessing and waste disposal should be excluded from reactor licensing proceedings. *App.* 137. On March 27, 1974, pursuant to 28 U.S.C. §§ 2342, 2343, the intervenors petitioned the United States Court of Appeals for the District of Columbia Circuit for review of the Appeal Board decision. *App.* 1.

[27] The temporary operating license was granted to Vermont Yankee under § 192 of the Atomic Energy Act, 42 U.S.C. § 2242. The Station was the only nuclear power plant ever granted a temporary operating license under § 192; the authority granted by that statute has now expired under its own terms.

3. The Rulemaking Proceedings on the Fuel Cycle

On November 15, 1972, about one month after the issuance of the Station's temporary operating license, described above, the Commission published in the Federal Register[28] a Notice of Proposed Rulemaking. *App.* 352-60 This notice announced a rulemaking proceeding to consider how, if at all, the environmental effects of the back and front ends of the fuel cycle should be factored into the "cost-benefit" analysis required in individual reactor licensing proceedings by *Calvert Cliffs' Coordinating Committee, Inc.* v. *AEC,* 449 F.2d 1109 (D.C. Cir. 1971). *App.* 352.

A legislative-type hearing was noticed for February 1, 1973, *App.* 358, and all "interested persons" were invited to participate by way of written or oral statements. *App.* 359. In addition, an opportunity was provided to submit written statements separate and apart from any statement made at the hearing.[29] The notice also announced that the technical staff of the Commission had prepared a report entitled *Environmental Survey of the Nuclear Fuel Cycle* (Nov., 1972), *App.* 355, which described the annual fuel cycle effects attributable to the operation of a model 1000 MW(e) nuclear power unit, together with the methodology and assumptions used by the staff in arriving at its conclusions. *App.* 538-646. The staff conclusions were summarized in a table entitled "Table S-3". *App.* 358. The Fuel Cycle Survey was made available prior to the hearing to all interested

[28] 37 Fed. Reg. 24191.

[29] On January 3, 1973, the Commission published a "Notice of Hearing" for the rulemaking and appointed a Hearing Board consisting of a lawyer chairman and two technical members to conduct the hearing. 38 Fed. Reg. 49; *App.* 361-63. As was the case with the original Notice of Proposed Rulemaking, *App.* 359, the Notice of Hearing emphasized that the hearing would be of the legislative type, and, therefore, no discovery or cross-examination would be permitted. *App.* 361.

persons, *App.* 361-62, and the Commission also made available the background studies, handwritten staff calculations, and superseded drafts of the survey. *App.* 389-90. In addition, the only prehearing request for further documents made by any party was honored by the Commission's staff. *App.* 390 n. 2; *see also App.* 683.

The rulemaking hearings were held on February 1-2, 1973. *See App.* 655-1023. All participants, including the intervenors, were afforded such time as they desired to present their comments and information. *App.* 367, 389. At the hearing, in an opening statement, the intervenors' counsel suggested a need for rights of cross-examination and discovery in order properly to resolve the substantive issues involved.[30] *App.* 837, 844. At no time during the hearing, however, did the intervenors attempt to make any showing as to what matters cross-examination would bring out that were otherwise incapable of presentation. *App.* 389.

[30] In its opinion the Court of Appeals characterizes this statement as a demand for adjudicatory trial-type proceedings in the rulemaking hearing. 547 F.2d at 643-44 n. 25; *App.* 44-45 n. 25. Actually counsel was not making such a demand in the context suggested by the Court of Appeals. *App.* 844. Rather counsel was suggesting that the intervenors' "Alternate 3" to the proposed rule be adopted. This in substance was an alternative calling for a future and open-ended generic hearing, adjudicatory in nature. *App.* 1043-44. No demand for trial-type procedures in the proceeding then in progress was made by the intervenors at the prehearing conference. *App.* 655-99. Indeed, during the oral hearing, the same counsel quoted by the Court of Appeals in its opinion stated flatly that his client (the intervenors) ". . . made no objection to the conduct of this hearing in exactly the form it is in." *App.* 933. The Court of Appeals does suggest: "The public-interest intervenors submitted a thorough legal brief demanding cross-examination and discovery rights. CNI-UCS Statement with Respect to Legal Consideration of the Proposed Regulations on the Nuclear Fuel Cycle, 20-29; II-J.A. 225, 245, 254." *App.* 44 n. 25. However, the "thorough legal brief" was filed March 2, 1973, one month after the oral hearings terminated. *App.* 1057.

During the staff presentation at the rulemaking hearing, Dr. Frank K. Pittman, Director of the Commission's Division of Waste Management and Transportation, read into the record a statement on waste disposal. *App.* 776-800. In this statement, Dr. Pittman described the projected design parameters for a 100-year-life retrievable surface storage facility for nuclear wastes — to be used while ongoing studies are continued to determine the optimum method for permanent storage of such wastes. The retrievable surface storage concept included the "canning" of waste in canisters and storing the canisters in a special structure which would incorporate necessary safety and security systems. *App.* 780-82, 1306-1309.

The opinion of the Commission's staff expressed at the hearing was that the future impacts upon the human environment resulting from the fuel cycle of a single reactor, including waste disposal, would be small. *App.* 773. A number of other participants addressed the subject of waste disposal. These included a witness for the intervenors. *App.* 879-98. No witness challenged the details of Dr. Pittman's technical presentation. See *App.* 951. The concerns expressed were rather in the nature of worries that no long-term solution to the nuclear waste problem had been, or would be, found. *App.* 865-66, 894-98, 905-907.

The Hearing Board questioned the speakers at the hearing. *E.g. App.* 802-27, 830-35, 898-950, 992-1005, 1016-23. In particular, the Hearing Board put questions on the subject of waste disposal to Dr. Pittman, *App.* 830-35, and to the technical witness presented by the intervenors, *App.* 898-911. The Hearing Board's questioning dealt specifically with Dr. Pittman's basic conclusion that a storage facility could be built and operated using presently available technology. *App.* 830-32. Dr. Pittman made clear that neither construction of the facility nor its subsequent operation was contingent upon the development of any new technology. *App.* 830-32. Upon the close of the hearing, in accordance with the notice thereof, *App.* 363, the record was left open for a period of thirty days to allow further comments. *App.* 367. The intervenors took full advantage of this opportunity, *App.* 1035-57, 1067-1107, and, indeed, at the request of the intervenors and others the record was held open for further comments even beyond the thirty day period. *App.* 368. Moreover, opportunity was provided for comments on the further comments. *App.* 368. Thereafter, the Hearing Board, as required by the notice calling the hearing, issued a report to the Commission and certified the record to the Commission for final decision. *App.* 364-84.

On April 16, 1974, the Commission published its decision, a new Uranium Fuel Cycle Regulation, 39 Fed. Reg. 14188 (Apr. 22, 1974), *App.* 385-400, which was subsequently codified, with minor amendments, as 10 C.F.R. § 51.20(e). At the same time the Commission's staff also issued a new version of the Fuel Cycle Survey entitled *Environmental Survey of the Uranium Fuel Cycle,* WASH-1248, April 1974, *App.* 392-93 (hereinafter referred to as the "Environmental Survey"), which incorporated certain changes in the original survey found appropriate in light of the matters adduced at the rulemaking proceeding. In particular it incorporated the material on waste storage placed in the record through the testimony and other submissions of Dr. Pittman.

The regulation as promulgated required that future environmental impact statements prepared in connection with individual reactors include the Final Table S-3 summarizing the environmental effects of the fuel cycle, and that the effects so summarized and quantified be factored, as an environmental "cost," into the *Calvert Cliffs'* "cost-benefit analysis" with respect to each reactor. *App.* 385-86. The

regulation also provided that no further discussion of the environmental effects of the fuel cycle was required in reactor licensing proceedings, thus obviating the need for extended consideration of the environmental effects of the fuel cycle in each future reactor licensing case. *App.* 398.

The regulation was accompanied by a statement of basis and purpose. *App.* 385-98. The statement described the background of the rulemaking, *App.* 385-86, recited the events surrounding the hearing, *App.* 387-89, and dealt with various issues identified to the Commission by the Hearing Board which the board believed to be worthy of particular attention. *App.* 389-98. The Commission discussed and rejected the procedural challenges to the rulemaking made by the intervenors. *App.* 389-90. It reviewed the adequacy of the original survey and concluded that the survey and the hearing record provided an adequate data base for the regulation adopted. *App.* 390-92. Turning to the question of high-level waste storage, the Commission concluded that with one minor adjustment, the proposed table (S-3) did accurately reflect the anticipated environmental effects from a storage facility such as that described by Dr. Pittman. *App.* 392. The Commission acknowledged that no such facility had yet been built, but pointed out that designs had been developed ". . . using existing technology based on well-established data and techniques." *App.* 392. The Commission expressed its view that sufficient data were presented to justify the conclusion that the environmental effects of waste storage and disposal were relatively insignificant, but the Commission promised that a revision of the Environmental Survey would be undertaken if subsequent experience so dictated. *App.* 394-95. Finally, the Commission ruled that, since the proceeding had demonstrated the environmental effects of the fuel cycle to be relatively insignificant, there existed no need to reopen

completed proceedings, such as *Vermont Yankee,* to factor in the costs disclosed in Table S-3. *App.* 395. On June 7, 1974, the intervenors petitioned for review of the rule in the Court of Appeals. *App.* 6.

D. The Action of the Court of Appeals

The United States Court of Appeals for the District of Columbia Circuit consolidated for argument the *Vermont Yankee* and the *Rulemaking* petitions. *App.* 3. Argument was had on the consolidated cases, and one year and almost two months later, on July 21, 1976, the Court of Appeals issued a decision. 547 F.2d 633; *App.* 28-71.

Relying on its prior decisions in *Scientists' Institute for Public Information, Inc. (SIPI)* v. *AEC,* 481 F.2d 1079 (D.C. Cir. 1973), and *Calvert Cliffs' Coordinating Committee, Inc.* v. *AEC,* 449 F.2d 1109 (D.C. Cir. 1971), the Court of Appeals held that Commission rulemaking must be accomplished by procedures which were sufficient to "ventilate" the issues and create a meaningful "dialogue." 547 F.2d at 643-44; *App.* 44-50. Full "ventilation" arising from meaningful "dialogue" was held to be necessary in rulemaking proceedings held in "the NEPA context." 547 F.2d at 645 n. 34; *App.* 48 n. 34. The Court of Appeals found that the procedures used in the rulemaking were not sufficient to meet this standard. In particular, the court held that the Commission's reliance on Dr. Pittman's testimony was misplaced; that the Commission, therefore, had failed to address "the major contentions that were raised"; and that the rule was invalid and the matter should be remanded for further proceedings to create "a genuine dialogue." 547 F.2d at 652-53; *App.* 65-71.

The Court of Appeals refused to specify what further procedures it wished the Commission to follow in order to

achieve the "genuine dialogue" which the court sought. Rather the court catalogued a number of procedural devices which, it said, were available to the Commission. 547 F.2d at 653; *App.* 67. Having done so, the court then observed that perhaps none of these devices might be sufficient: the Commission might be required to "develop new procedures to accomplish the innovative task of implementing NEPA through rulemaking." *Id.* On the other hand, the court said, perhaps the very procedures actually employed by the Commission would suffice, "if administered in a more sensitive, deliberate manner." 547 F.2d at 653-54; *App.* 67.

In light of its disposition of the rulemaking case, the Court of Appeals held that the Vermont Yankee licensing order must be remanded. The court rejected the Appeal Board's position that analysis of the environmental effects of waste disposal in an individual reactor licensing proceeding would not be meaningful or possible; in the Court of Appeals' view, meaningful information on such effects was available and NEPA required that a forecast as to them be made now. 547 F.2d at 639-40; *App.* 36-37. The Appeal Board's second rationale — that these matters would be gone over in detail in separate licensing proceedings involving waste disposal facilities — was also rejected. 547 F.2d at 640-41; *App.* 37-39. Relying on its own prior decisions, the court held that the Commission could not await the coming of a specific proposal for a waste disposal facility; instead, the court held, NEPA required present exploration of these issues and the making of what amounted to a full environmental analysis with respect to them. 547 F.2d at 640-41; *App.* 38-39. The court did acknowledge that the Commission had discretion to deal with waste disposal and reprocessing issues in generic rulemaking proceedings, as opposed to relitigating these issues on a case-by-case basis in individual licensing proceedings. 547 F.2d at 641

n. 17; *App.* 40 n. 17. However, the court held that, in the absence of a valid generic proceeding, the issues remained ripe for consideration in individual licensing cases. *Id.* Since these issues had not been resolved in the *Vermont Yankee* proceeding, the Vermont Yankee licensing order was remanded.

On October 8, 1976, the Court of Appeals issued an order correcting its opinion. *App.* 87-88. This correction was the result of a motion filed by the Commission. In that motion, the Commission pointed out that, contrary to the repeated assertions in Court of Appeals' original opinion that Dr. Pittman had not been questioned by the Hearing Board, *App.* 61 & n. 53, 62, 66, 68 n. 59, Dr. Pittman in fact had been so interrogated, *App.* 830-35. As a result, the Court of Appeals issued the October 8, 1976 order deleting three of the assertions. The Court of Appeals left its opinion otherwise unchanged. *App.* 87-88.

E. Subesquent Events

Since the original decision of the Court of Appeals both the Commission and the President have sought to deal with the continuation of nuclear licensing.

Initially the Commission issued, on August 13, 1976, a General Policy Statement setting forth the Commission's response to the court's original decision. 41 Fed. Reg. 34707.[31] The General Policy Statement required reopening of the *Vermont Yankee* operating license hearing, initially to consider whether the license should be revoked or suspended pending the resolution of the rulemaking; it directed

---

[31] Reprinted in Appendix to the Petition for Certiorari in No. 76-419 at pages A-149—A-158.

the staff to prepare a new environmental survey; and it declared a moratorium upon the issuance of operating licenses or construction permits pending promulgation of an interim rule. *Id.* On October 13, 1976, the Commission promulgated a notice of proposed rulemaking, setting out its interim rule for use — while proceedings with respect to a final rule were going forward — in considering the environmental impacts of fuel reprocessing and waste management. 41 Fed. Reg. 45849 (Oct. 18, 1976).

On November 5, 1976, the Commission issued a new order with respect to Vermont Yankee's operating license; it suspended the proceedings against Vermont Yankee, based on its determination that the interim rule on environmental effects of the fuel cycle was not likely to be substantially different from the rule produced by the prior rulemaking. *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), CLI-76-18, NRCI-76/11 470 (Nov. 5, 1976).[32] On the same day the Commission promulgated a Supplemental General Statement of Policy, 41 Fed. Reg. 49898 (Nov. 11, 1976).[33] The Supplemental Statement announced that the Commission would not initiate show-cause proceedings against holders of construction permits, limited work authorizations, or operating licenses for nuclear reactors; that the Commission would suspend show-cause proceedings already begun; and that licensing could resume in individual cases whenever it could be found that use of the numerical values of the proposed interim rule would not "tilt the cost-benefit balance against the issuance of the license." *Id.*

---

[32] Reprinted in Supplemental Appendix to the Petition for Certiorari in No. 76-419 at pages SA-25—SA-28.

[33] Reprinted in Supplemental Appendix to the Petition for Certiorari in No. 76-419 at pages SA-20—SA-24.

On March 7, 1977, the Commission adopted a "final interim rule," setting out the interim rule which would be in effect pending adoption of a final rule to deal with the environmental effects of reprocessing and waste disposal. 42 Fed. Reg. 13803 (March 14, 1977), and on May 20, 1977, 42 Fed. Reg. 26987 (May 26, 1977), the Commission issued a notice of reopened hearing to consider a new "final" rule. The provisions of the "final interim rule," which is now in effect and governs current licensing proceedings, are not substantially different from those of the proposed rule, nor, indeed, from those of the rule as initially adopted. Moreover, because the differences were not sufficient to warrant revocation or suspension on cost-benefit grounds, pending show-cause proceedings initiated pursuant to the General Policy Statement were to be terminated. 42 Fed. Reg. at 13806. In the *Vermont Yankee* case the Commission directed its Appeal Board to make a specific determination as to whether there would be a tilt in the cost-benefit balance. *Vermont Yankee Nuclear Power Corporation,* CLI-77-10, 5 NRC —, 2 CCH NUCLEAR REG. RPTR. § 30,171 (April 1, 1977). On May 13, 1977 the intervenors petitioned the Court of Appeals for review of the "final interim rule." *Natural Resources Defense Council* v. *NRC* (D.C. Cir. No. 77-1448).

In addition to the Commission's activity (essentially reaffirming its prior position), the President has asked the Congress to address energy questions on a broad front. As a part of his approach to energy the President has emphasized the use of nuclear power and coal as replacements for oil. At the same time the President has taken steps to discourage the construction of breeder reactors (which would create Pu^{239}, *see* pp. 8-9 *supra*) and the reprocessing of fuel from existing nuclear reactors (which also results in the separation and concentration of Pu^{239}). 13 PRES. DOC. 560 *et seq.*, 566 *et seq.* (Apr. 25, 1977).

SUMMARY OF ARGUMENT

Five reasons are urged for reversal of the Court of Appeals' decision. First, the Court of Appeals erred in holding that the procedures used in the Commission's rulemaking proceeding were insufficient. Pp. 30-38 *infra*. The Commission is not an agency which is required by its organic statute to adopt regulations only after a hearing "on the record." P. 30 *infra*. This Court has held that rulemaking by such agencies need comply only with the procedures delineated in Section 4 of the Administrative Procedure Act. P. 30 *infra*. These procedures were fully complied with in the adoption of the regulation at issue. Pp. 31-34 *infra*. In particular, the statement of basis and purpose dealt with all issues raised in the agency record, and articulated the determinative reason for the final action taken with respect to each issue. Pp. 32-34 *infra*. NEPA cannot be construed as providing a basis for more or different procedures than those required by Section 4 of the Administrative Procedure Act. Pp. 35-38 *infra*.

Second, the Court of Appeals has arrogated to itself the right of the Commission to define the scope of the "proposed action" before it. Pp. 39-45 *infra*. The Court of Appeals has refused to accept the Commission's rulings as to the feasibility of writing a meaningful environmental impact statement on waste disposal facilities at this time, pp. 44-45 *infra*, and faulted the Commission for not preparing what amounts to a full environmental impact statement on a nuclear waste disposal facility despite the fact that no such facility was before the Commission for approval, pp. 42-44 *infra*. All of these holdings transgress the principles governing the timing and scope of NEPA environmental impact statements laid down by this Court in *Kleppe* v. *Sierra Club*, 427 U.S. 390 (1976). Pp. 43-45 *infra*.

Third, the Court of Appeals erred in construing NEPA to require a full "ventilation" and, indeed, resolution of the environmental effects of waste disposal prior to any further licensing of nuclear power plants in the United States. Pp. 46-51 *infra*. Such a holding flies in the face of a long history of Congressional legislation concerning, and Congressional oversight of, nuclear power, pp. 46-48 *infra*, and is clearly at odds with the intent expressed by Congress in passing legislation with respect to nuclear power several years after the passage of NEPA, pp. 48-51 *infra*.

Fourth, the decision of the Court of Appeals represents a massive substitution by that court of its judgment for that of the Commission in matters committed to the Commission's informed discretion. Pp. 51-65 *infra*. The Court of Appeals erred in substituting its judgment for that of the Commission as to the type and extent of interrogation required to assure the Commission of the correctness of certain technical testimony, pp. 60-65 *infra*, the credence to be given to the testimony of its technical staff, pp. 58-60 *infra*, and the degree of technical detail which the Commission needed to reach its decision, pp. 52-58 *infra*.

Fifth, the Court of Appeals erred in utilizing articles published after the rulemaking proceeding had ended and which were not part of the agency record, as a basis for creating an alleged conflict with certain testimony relied upon by the Commission. Pp. 65-66 *infra*.

For each and all of the foregoing reasons, reversal of the Court of Appeals' decision is urged.

ARGUMENT

I. THE COURT OF APPEALS ERRED IN HOLDING THAT NEPA REQUIRES THE USE OF PROCEDURES IN AGENCY RULEMAKING PROCEEDINGS BEYOND THOSE REQUIRED BY THE ADMINISTRATIVE PROCEDURE ACT

The Court of Appeals rejected the Commission's rule (and, as a consequence, remanded the Vermont Yankee licensing order) on the basis of one legal premise fundamental to its entire decision. That fundamental premise was that agency rulemaking "in the NEPA context" must employ additional procedures beyond those required by Section 4 of the Administrative Procedure Act, 5 U.S.C. § 553. The premise is simply wrong.[34]

The Commission's basic statute is the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2011 *et seq.*, which does not require a hearing "on the record" for rulemaking. 42 U.S.C. § 2239(a); *Siegel* v. *AEC*, 400 F.2d 778, 785-86 (D.C. Cir. 1968). Absent such a specific statutory requirement, it is settled law that only those procedures set forth in Section 4 of the Administrative Procedure Act, 5 U.S.C. § 553, need be followed. *United States* v. *Florida East Coast Railway Co.*, 410 U.S. 224, 237-38 (1973); *United States* v. *Allegheny-Ludlum Steel Corp.*, 406 U.S. 742, 756-58 (1972). *See also American Trucking Associates, Inc.* v. *United States*, 344 U.S. 298, 318-20 (1953). These procedures were complied

[34] The Court of Appeals' willingness to prescribe additional procedures for agencies "in the NEPA context" is also challenged — in connection with a licensing proceeding — in the case consolidated with this one, *Consumers Power*, No. 76-528. In that case the Court of Appeals effectively invalidated the Commission's rule that an intervenor had to meet a "threshold test" before the Commission could be required to explore in detail energy conservation alternatives. The propriety of imposing some such burden of going forward is also at issue in *Vermont Yankee*, No. 76-419, because of the intervenors' unexplained demands for cross-examination and discovery. *See* p. 36 n. 40, p. 64 *infra*.

with in full measure in the Commission's rulemaking and the Court of Appeals was without authority to require more, "NEPA context" or not.

A. The Commission's Rulemaking Procedures Complied with, and Exceeded, the Requirements of the Administrative Procedure Act

Section 4 of the Administrative Procedure Act, 5 U.S.C. § 553, is clear with respect to what is required in a rulemaking. The statute requires (1) a proper notice of the proposed rule be published in the Federal Register; (2) that "interested persons" be given:

> ". . . an opportunity to participate in the rule making through submission of written data, views or arguments with or without opportunity for oral presentation;"

and (3) that, after consideration of the relevant matter presented, the agency incorporate in the rules adopted "a concise general statement of their basis and purpose," 5 U.S.C. § 553(c).

There can be no doubt that all of the foregoing requirements were met here. Indeed, the Court of Appeals itself recognized that the procedural requirements of 5 U.S.C. § 553 were satisfied, 547 F.2d at 643, 653-54 & n. 58; *App.* 43, 67-68 & n. 59; *see also* 547 F.2d at 656 & n. 3; *App.* 79 & n. 3 (Tamm, J., concurring), and this recognition is fully supported by the record.

The notice issued with respect to the rulemaking clearly complied with 5 U.S.C. § 553.[35] As for an "opportunity to

[35] The notice must contain "(1) a statement of the time, place and nature of public rulemaking proceedings [*App.* 358, 361]; (2) a reference to the legal authority under which the rule is proposed [*App.* 360]; and (3) either the terms or substance of the proposed rule or a description of the subjects and issues involved [*App.* 356-58]". 5 U.S.C. § 553(b). The notice in this case fully complied with these requirements and no assertion to the contrary was made to, or by, the Court of Appeals.

participate," the original notice set forth two alternative proposals, *App.* 356-58, provided for a 60-day period for submission of written comments, *App.* 359, and gave notice of an oral hearing at which all persons were invited to present new (or additional) written and oral statements, *App.* 358-59. Many "interested persons" took advantage of these "opportunities." *See App.* 379-84. Written comments were received from a number of individuals and organizations. *App.* 366. In addition, a number of oral presentations were made at the hearing. *App.* 700-1023. Thereafter, the record was held open for an additional thirty days to provide all persons a further opportunity to file supplementary comments, *App.* 367, a further opportunity of which a number of participants (including the intervenors) took advantage. *App.* 367-68. Indeed, the thirty-day period was extended for various persons (including the intervenors) for additional periods of time; and, finally, time was granted for more comments on the supplementary comments. *App.* 368. The "opportunity to participate" was far in excess of that required by the statute.[36]

Finally, there is the matter of the "concise general statement" of "basis and purpose." This Court has suggested that such a statement may be "curt," being required to articulate only the "determinative reason for the final action taken." *See Camp* v. *Pitts,* 411 U.S. 138, 142-43 (1973). The statement made by the Commission far exceeded that stan-

[36] Given what happened at the rulemaking — *viz.*, opportunity to comment *before* the hearing; opportunity to comment *at* the hearing; opportunity to comment *after* the hearing on what had been said before and at the hearing; and, finally, opportunity to comment on the posthearing comments on the prehearing and hearing comments — it is difficult to see how the Court of Appeals perceived the procedures as insufficient to create a "dialogue," even assuming a dialogue was required.

dard. In fact, the Commission's statement of basis and purpose addressed every substantive issue delineated by the Hearing Board[37] and set out reasons for its resolution of each one. Thus, for example, on the issue of sabotage and diversion the Commission noted that the detailed design to protect against such events would be explored in licensing cases involving individual disposal or reprocessing facilities. *App.* 390-91. The Commission pointed out that the adverse environmental effects (radioactive release, in the main) of sabotage and diversion would be comparable to those which would occur in the event of an accident, *App.* 391, and that the environmental effects of accidents had been analyzed in the survey, *App.* 1276-83, 1314-17. Thus, these analyses were found by the Commission to constitute a reasonable representation of the environmental effects which could be expected to occur in the event of sabotage. *App.* 391. On a related point, the Commission stated that it was able to rely on its staff's analysis of environmental effects of the proposed retrievable waste storage facility (although one had never yet been built), because the design and construction of such a facility were within the compass of existing technology based on well-established data and techniques. *App.* 392. The Commission also noted that certain aspects of plutonium handling were not discussed in the survey because plutonium recycling had not yet been undertaken.[38] *App.* 391. Finally, the Commission rejected an argument that Table S-3 should be revised to set out "ranges of releases" on the ground that, given the conservatism of the analysis, the figures given already reflected a greater impact than was actually expected. *App.* 393.

[37] The Commission also addressed the procedural issues presented by the Hearing Board. *See* note 40 *infra.*

[38] See note 13 *supra.*

The Commission's statement of basis and purpose was thus far more than "curt." It dealt with each of the substantive issues which had emerged from the hearing, relevant in whole or in part to the back end of the fuel cycle. In each instance the Commission "indicated the determinative reason for the final action taken." *Camp* v. *Pitts,* 411 U.S. at 142-43. In addition, the Commission noted that future research and technology might produce more precise data or uncover new problems. *App.* 395. The Commission therefore announced its willingness to conduct further proceedings should such additional information develop. *Id.* Indeed, the Commission's rulemaking procedures were remarkably similar to, and, in fact, provided more "opportunity to participate" than, those upheld by this Court in *Florida East Coast*:

> "Here the Commission promulgated a tentative draft of an order, and accorded all interested parties 60 days in which to file statements of position, submissions of evidence, and other relevant observations. The parties had fair notice of exactly what the Commission proposed to do, and were given an opportunity to comment, to object, or to make some other form of written submission. The final order of the Commission indicates that it gave consideration to the statements of the two appellees here. Given the 'open ended' nature of the proceedings, and the Commission's announced willingness to consider proposals for modification after operating experience had been acquired, we think the hearing requirement of § 1(14)(a) of the [Interstate Commerce] Act was met." 410 U.S. at 241-42.[39]

[39] Prior to the above-quoted statement this Court had held that the word "hearing" in § 1(14)(a) of the Interstate Commerce Act which was inserted by amendment in 1966, P.L. 89-430, 80 Stat. 168, was to be construed as having the same meaning as the word "hearing" in 5 U.S.C. § 553. 410 U.S. at 240-41.

B. The Court of Appeals Was Without Authority To Require Additional Procedures

Notwithstanding all of the foregoing, the Court of Appeals held that more was required in order to assure that a "genuine dialogue" was had. The Court of Appeals listed the following "procedural devices" that the Commission might have employed:

> ". . . informal conferences between intervenors and staff, document discovery, interrogatories, technical advisory committees comprised of outside experts with differing perspectives, limited cross-examination, funding independent research by intervenors, detailed annotation of technical reports, surveys of existing literature, memoranda explaining methodology." 547 F.2d at 653; *App.* 67.

These "procedural devices" have at least one thing in common. None of them is mentioned in 5 U.S.C. § 553. That statute requires notice, an opportunity to participate by way of comment, and a concise general statement of basis and purpose, and nothing more is required. *United States* v. *Allegheny-Ludlum Steel Corp.*, 406 U.S. at 758.

This Court has repeatedly refused to impose procedural requirements on agency rulemaking beyond those set out in the plain words of the statute. The wisdom of this position, recently stated unequivocally in *Allegheny-Ludlum* and reiterated in *Florida East Coast,* is confirmed by the Court of Appeals' approach in this case to its own catalogue of "procedural devices." Having propounded its list, the court then observed:

> "It may be that no combination of the procedures mentioned above will prove adequate . . . ." 547 F.2d at 653; *App.* 67.

In this event, the court stated, the Commission might be compelled to surpass the court itself in innovation:

> "[T]he agency will be required to develop new procedures to accomplish the innovative task of implementing NEPA through rulemaking." *Id.*

On the other hand, the court speculated, perhaps nothing new was required at all — simply a greater degree of Commission sensitivity:

> "[T]he procedures the agency adopted in this case, if administered in a more sensitive, deliberate manner, might suffice." *Id.*

All of these contradictory possibilities were put forward, the court said, only because of its concern that the record "disclose a thorough ventilation of the issues." 547 F.2d at 654 n. 58; App. 68 n. 59. No guidance is given, however, as to what constitutes a properly designed ventilator. Nor is there any assurance that any known procedures or techniques can be used to construct the ventilator. The result is a game of judicial Botticelli, in which the Court of Appeals says it is thinking of proper procedures, but will not say what they are.[40] Such a situation cannot be tolerated in the regulation of any industry, particularly when the industry

[40] Before the Hearing Board the intervenors contended that proper resolution of the substantive issues required discovery and cross-examination. *App.* 389. The Commission rejected this contention. As to discovery it pointed out that all pertinent documents, as well as various drafts and handwritten notes, had in fact been made available to all participants several weeks prior to the hearings. *App.* 389-90. With respect to cross-examination, the Commission noted:

> "In our view, the procedures adopted provide a more than adequate basis for formulation of the rule we adopted. All parties were fully heard. Nothing offered was excluded. The record does not indicate that any evidentiary material would have been received under different procedures. *Nor did the proponent of the strict 'adjudicatory' approach make an offer of proof — or even remotely suggest — what substantive matters it would develop under different procedures.*" *App.* 389 (emphasis supplied).

In other words, to use the Court of Appeals' terms, the Commission found that the intervenors had suggested a "procedural device," but had entirely failed to show what additional "ventilation" or "dialogue" would result from the use of the device. Although the

is responsible for a substantial portion of the energy supply of the nation.

The decision of the Court of Appeals represents another in a line of decisions of that court which in substance have held that where full adjudicatory proceedings, *see* 5 U.S.C. §§ 556, 557, are not required by an agency's rulemaking statute, it is nevertheless the function of the reviewing court to determine how much in excess of 5 U.S.C. § 553 "minima" will be required in any given rulemaking.[41] *Allegheny-Ludlum* and *Florida East Coast Railway, supra,* establish beyond any doubt, however, that this "duty" which the Court of Appeals has undertaken, *see* 547 F.2d at 651; *App.* 61, has no basis in the Administrative Procedure Act. Nor does the Constitution impose any such duty; the 5 U.S.C. § 553 procedures for rulemaking impinge upon no constitutional requirement in this setting. *California Citizens Band Ass'n, Inc.* v. *United States,* 375 F.2d 43, 50 (9th Cir.), *cert. denied,* 389 U.S. 844 (1967). *See also Bowles* v. *Willingham,* 321 U.S. 503, 519-20 (1944). The Courts of Appeals are simply not permitted to prescribe additional rule-

Court of Appeals suggested that the intervenors' brief demanding cross-examination and discovery rights and a statement of counsel were "sufficient to focus the agency's attention on Dr. Pittman's testimony as in the category of '"soft" and sensitive subjects and witnesses,' " 547 F.2d at 644 n. 25; *App.* 44-45 n. 25, the court acknowledged that the intervenors did not show the Commission what, if anything, would have been developed by use of further procedures which was impossible to obtain under the procedures actually utilized. *But see International Harvester Co.* v. *Ruckelshaus,* 478 F.2d 615, 631 (D.C. Cir. 1973); *American Airlines, Inc.* v. *CAB,* 359 F.2d 624, 633 (D.C. Cir.) (*en banc*), *cert. denied,* 385 U.S. 843 (1966). *Cf. United States* v. *Florida East Coast Railway Co., supra,* 410 U.S. at 234.

[41] *E.g., Mobil Oil Corp.* v. *FPC,* 483 F.2d 1238, 1251-54 (D.C. Cir. 1973); *Walter Holm & Co.* v. *Hardin,* 449 F.2d 1009, 1015 (D.C. Cir. 1971).

making procedures for federal agencies. *See FPC* v. *Transcontinental Gas Corporation,* 423 U.S. 326 (1976).

The Court of Appeals appears to suggest, nonetheless, that the result may be different when NEPA is involved. *See* 547 F.2d at 645 n. 34, 653; *App.* 48, n. 34, 69. Such a view has been decisively rejected by this Court. This Court's interpretations of the Administrative Procedure Act in *Allegheny-Ludlum* and *Florida East Coast Railway, supra,* were rendered several years after NEPA was enacted. Those were not, it is true, NEPA cases, but this Court has also held that NEPA was not intended to repeal or amend, directly or by implication, any other statute. *United States* v. *SCRAP,* 412 U.S. 669, 694 (1973); *Aberdeen & Rockfish Railroad Co.* v. *SCRAP,* 422 U.S. 289, 319 (1975). *A fortiori,* NEPA cannot provide a basis for reconstituting the fundamental procedural provisions of the Administrative Procedure Act.[42] Just last term this Court stressed that the only procedural requirements imposed by NEPA are those set forth in the specific language of that statute. *Kleppe* v. *Sierra Club,* 427 U.S. 390, 405-06 (1976). The "procedural devices" suggested by the Court of Appeals are, in fact, as foreign to the language of NEPA as to the Administrative Procedure Act itself.

If provision is to be made in the Administrative Procedure Act or NEPA for some proceedings short of full adjudicatory proceedings, 5 U.S.C. §§ 556, 557, but more structured than the rulemaking proceedings described in 5 U.S.C. § 553, the decision to do so is one for the Congress, not the Courts of Appeals. In the absence of any such statutory directive, the Court of Appeals' attempt to place a procedural gloss on NEPA and the Administrative Procedure Act was error.

---

[42] Indeed, in their legal brief to the Commission, the intervenors conceded that NEPA provided no legal basis for requiring adjudicatory type hearings. *App.* 1044.

II. THE COURT OF APPEALS ERRED IN HOLDING THAT NEPA REQUIRES CONSIDERATION OF REPROCESSING AND WASTE DISPOSAL IN LICENSING PROCEEDINGS FOR INDIVIDUAL NUCLEAR REACTORS

The Court of Appeals has dictated what the Commission must view as the "proposal" before it, and effectively required that the Commission consider now the environmental effects of certain facilities not yet presented to it. The court's intrusion was two-fold: First, while recognizing that the Commission had discretion to consider waste disposal and reprocessing in generic rulemaking proceedings — and was doing so — the court nonetheless held that the Commission could not proceed with individual reactor licensing until there was a "thorough ventilation" of the waste disposal issue. That is the meaning of the Court of Appeals' remand of Vermont Yankee's licensing order.

The court's second intrusion was, if anything, more serious, for it is clear from the court's opinion that it intended the issue of waste disposal not only to be "ventilated," but essentially to be resolved. That the Court of Appeals was demanding more than mere "ventilation" but rather essential resolution of the waste disposal question is apparent from the court's criticism of the Commission. The Court of Appeals faulted the Commission for not detailing what amounts to an essentially complete design for a retrievable waste storage facility, 547 F.2d at 648-49; *App.* 56, a detailed description of anti-terrorist aspects of such design, 547 F.2d at 650; *App.* 58, and the costs and methods for long-term surveillance of such facilities, 547 F.2d at 650; *App.* 60.

The fact was, however, that the Commission was concerned with the licensing of an individual reactor, not waste

disposal facilities. It was not for the Court of Appeals to redefine the issues before the Commission, nor to dictate the order of their consideration. Such action was especially inappropriate when the agency itself had carefully considered the proper methods of accounting for the environmental effects of waste disposal.

Thus the Appeal Board, exercising the Commission's appellate functions, rejected on two grounds the contention that the environmental effects of the back end of the fuel cycle must be addressed in individual reactor licensing proceedings. First, in the Appeal Board's view, "the proposed action," as used in NEPA, was the licensing of a reactor. The Appeal Board noted that facilities to be used in the back end of fuel cycle were required by the Atomic Energy Act to be licensed separately from the nuclear power reactors which create the spent fuel. *App.* 119. Such "back end" facilities would, at the time of their own individual licensing, be subject to a full environmental review under NEPA. *Id.* The Appeal Board stated:

> "The scope of the inquiry required by [§ 102(2)(C) of NEPA] is repeatedly defined, by the language of that section and as reflected in the language of [Commission regulations], as the impact, the consequences and the alternatives of 'the proposed action', which in the present case is the licensing of a specific nuclear power reactor. The language of Section 102 directs that the environmental statement shall be accomplished 'to the fullest extent possible'. But 'the proposed action' is the licensing of the Vermont Yankee reactor and not of other present and future facilities at other places, to be operated by other firms, and having at best a contingent and presently indefinable relation to this facility." *App.* 119-120.

The second ground relied upon by the Appeal Board was essentially based upon practicality. A proper NEPA analysis only would be possible, the Appeal Board concluded, in

the context of specific reprocessing or disposal facilities. The Appeal Board said:

> "It is evident to us that evaluation of the environmental effects of the operation of one or more unidentifiable reprocessing plants, employing separation processes which are unidentified and which may or may not now be known or used, during the course of the forty-year life of the plant, is not possible at this time and in this proceeding. If the fuel elements of the Vermont Yankee plant pass through the process stream of one reprocessing plant or another now operating or to operate in the future, preceded and followed by the fuel elements and their constituents from other plants, we cannot see how any effect of that process on the environment taking into account the factors enumerated in Subsection 101(b) and Section 102 of [NEPA] can be analyzed except as a part of the integrated analysis of the total operation of that specific reprocessing plant." *App.* 120.[43]

These holdings of the Appeal Board may be taken to be holdings of the Commission itself. *See* pp. 12-13 *supra.* The Commission, however, was itself prepared to go further and, by its generic rulemaking proceeding, attempt to formulate a method for considering in an individual reactor licensing proceeding the marginal environmental effects of the back end of the fuel cycle attributable to that individual reactor. The Commission recognized that such consideration was only possible, or necessary, to a limited extent, *see* pp. 21-23 *supra,* and, like the Appeal Board, it noted that detailed environmental consideration would be given

---

[43] The impracticality of such an analysis was also referred to at length by the Licensing Board. See the dialogue between technical member Hall, Chairman Jensch and counsel, *App.* 493-98. Another government agency, EPA, also did not think such discussion, at least as of this time, was practical. *App.* 828-29. As a result, in the rulemaking proceeding EPA opted for an alternative of no discussion of these matters in the environmental impact statement. *App.* 829.

to waste disposal and reprocessing facilities in proceedings for licensing those facilities, *see* p. 33 *supra; App.* 390.

The Court of Appeals flatly rejected the approach of the Commission and its Appeal Board. The notion that environmental review should be confined to "the proposed action," which did not include licensing reprocessing and waste disposal facilities, had already been rejected, the court said, in its decision in *Calvert Cliffs' Coordinating Committee, Inc.* v. *AEC,* 449 F.2d 1109, 1128 (D.C. Cir. 1971). 547 F.2d at 640 & n. 14; *App.* 38 & n. 14. The Court of Appeals characterized the suggestion that waste disposal and reprocessing should be considered in connection with the licensing of waste disposal and reprocessing facilities as "incremental decision-making" forbidden by NEPA. 547 F.2d at 640; *App.* 38. As to the practical difficulties of environmental evaluation outside the ambit of specific proposals, the Court of Appeals was content to rest upon its prior holding in the "*SIPI*" case *Scientists' Institute for Public Information, Inc. (SIPI)* v. *AEC,* 481 F.2d 1079 (D.C. Cir. 1973). The court stated:

> "[I]n *SIPI* . . . we held that the obligation to make reasonable forecasts of the future is implicit in NEPA and therefore an agency cannot 'shirk [its] responsibilities under NEPA by labelling any and all discussion of future environmental effects as "crystal ball inquiry".' 'Meaningful information' concerning the effects of waste reprocessing and disposal technology is presently available, [citing *SIPI*]." 547 F.2d at 639; *App.* 36. *But see App.* 496.

These views are inconsistent with this Court's interpretation of NEPA's requirements. This Court has held that an environmental impact statement may properly be confined to the impact of the proposed action then pending before

the agency, and need not concern itself with other possible proposals which may be considered by the agency for approval in the future. *Kleppe* v. *Sierra Club,* 427 U.S. 390, 410 n. 20, 414-15 & n. 26 (1976). In addition, this Court has recognized that the scope of an environmental impact statement may be limited by practical considerations of feasibility, *Kleppe* v. *Sierra Club,* 427 U.S. at 414, and that the agency's decision on the proper scope of an impact statement should be respected by the courts unless it is arbitrary. *Id.*

The decision of the Court of Appeals, however, would force the Commission, as part of the licensing procedure for a single nuclear reactor, essentially to commence preparation of, and indeed perhaps complete, what amounts to an environmental impact statement for a specific waste storage facility for which no proposal has been made. This contravenes the square holding of *Kleppe* as to the timing of such statements and the degree of agency discretion in connection therewith. The Court of Appeals sought to rely on this Court's statement in *Kleppe* that:

> ". . . when several proposals for coal-related actions that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together." 427 U.S. at 410 (footnote omitted), *quoted in part at* 547 F.2d at 639 n. 12; *App.* 36 n. 12.

However, the portion of *Kleppe* most directly applicable to the matter at hand is that immediately appended to the statement quoted by the Court of Appeals:

> "The statute [NEPA], however, speaks solely in terms of *proposed* actions; it does not require an agency to consider the possible environmental impacts of less imminent actions when preparing the impact statement on

> proposed actions. Should contemplated actions later reach the stage of actual proposals, impact statements on them will take into account the effect of their approval upon the existing environment; and the condition of that environment presumably will reflect earlier proposed actions and their effects." 427 U.S. at 410 n. 20 (emphasis in original).

Thus, this Court made clear that the governing criterion in deciding whether to consider proposals together is the imminence of the federal action. At the time of the *Vermont Yankee* licensing proceeding there were no permanent waste storage facility proposals before the Commission. There were two privately owned waste reprocessing facilities under construction. *App.* 119. Operation of no new fuel reprocessing or waste disposal facility was "imminent" at the time Vermont Yankee was licensed. Indeed, as noted earlier, no reprocessing or permanent (or retrievable) disposal facilities now operate in the United States. *See* p. 10 *supra.*

Finally, the Court of Appeals' decision demonstrates a somewhat cavalier disregard of the Commission's concern with the practical difficulties with respect to present evaluation of future waste disposal. The Appeal Board had held that the back end of the fuel cycle could not be considered meaningfully in the *Vermont Yankee* licensing case or any similar forum. In *Kleppe* this Court observed:

> "The determination of the region, if any, with respect to which a comprehensive statement is necessary requires the weighing of a number of relevant factors, *including the extent of the interrelationship among proposed actions and practical considerations of feasibility.* Resolving these issues requires a high level of technical expertise and is properly left to the informed discretion of the responsible federal agencies. [Citation omitted.] Absent a showing of arbitrary action, we must assume that the agencies have exercised this discretion appropriately." 427 U.S. at 412 (emphasis supplied).

The Appeal Board's decision as to the proper scope of the Vermont Yankee environmental impact statement was hardly arbitrary. It was wholly in line with the Congressional and regulatory history of treating power reactor proposals separately from proposals for facilities involved in the "back end" of the fuel cycle. *See* pp. 46-51, *infra.*

Indeed, given the nature of the actual proposal before it, the Commission's rule was not required at all by NEPA and represents a response to environmental sensitivities beyond the demands of the law. In any event, however, both the rule and the licensing decision recognize the fact that the existence or nonexistence of the Station would not affect the need for disposal facilities one whit as a practical matter. Both recognize the practical impossibility of litigating the issue in any meaningful fashion in the licensing hearing forum. Both recognize that in the absence of a specific proposal for a specific waste disposal and/or reprocessing facility ". . . there is nothing that could be the subject of the analysis envisioned by the statute for an impact statement." *Kleppe* v. *Sierra Club,* 427 U.S. at 401. *Kleppe* requires that, when an agency has thus come to grips with the practical difficulties of fulfilling its NEPA responsibilities (and, indeed, gone further than NEPA would demand), the reviewing court should respect the agency processes.

III. THE LEGISLATIVE HISTORY OF THE ATOMIC ENERGY ACT, CONTINUING CONGRESSIONAL OVERSIGHT, AND THE ENERGY REORGANIZATION ACT OF 1974 DEMONSTRATE A CONGRESSIONAL DETERMINATION THAT REACTOR LICENSING SHOULD PROCEED PRIOR TO RESOLUTION OF THE WASTE DISPOSAL ISSUE

A review of the history of Congressional action with respect to civilian use of nuclear power over a period of more than two decades wholly rebuts any theory that Congress intended NEPA to require reactor licensing to be contingent upon "ventilation" of waste disposal issues, much less resolution of such issues. At the outset of Congress' consideration of civilian use of nuclear reactor technology it was recognized that many unknowns existed and that the nation was embarking on the widespread use of a potentially dangerous technology. The approach suggested by the President and adopted by Congress was to provide extreme flexibility with respect to licensing and regulation,[44] entrusting to an unprecedented degree the decision-making authority as to the direction, speed, and goals of the nuclear energy program to a regulatory agency, while at the same time providing for close oversight of the agency's activities by the Congress.[45] The result, as this Court has long recognized, was a unique relationship between the Commission and the Congress. *Power Reactor Development Co.* v. *International Union of Electrical, Radio and Machine Workers, AFL-CIO,* 367 U.S. 396, 408 (1961).

Congress was fully aware from the outset that use of nuclear reactor technology ineluctably results in the creation

[44] *Message from the President,* H.R. Doc. No. 328, 83d Cong., 2d Sess. 7 (1954).

[45] See 42 U.S.C. §§ 2016, 2252.

of long-lived radioactive materials which represent a potential hazard to mankind and have to be isolated from the biosphere for unprecedented periods of time.[46] Despite these dangers and the absence of any final resolution of the problem, Congress determined to permit civilian use of nuclear technology to go forward. Since the passage of the Atomic Energy Act of 1954, the lack of a decision on the means for final disposition of nuclear waste has been repeatedly brought to the attention of the Congress.[47] Nonetheless Congress has made no suggestion that nuclear power plant licensing should be terminated. Moreover, on numerous occasions since NEPA went into effect on January 1, 1970, at Congressional hearings, Congress was made

[46] In the House Debate on the Atomic Energy Act of 1954 the question of waste disposition and the fact that no certainty existed with respect to a final resolution of the problem were specifically raised. 100 CONG. REC. 14044-45 (Aug. 17, 1954) (Remarks of Rep. Dingell).

[47] For example, the problem of waste disposal was the subject of extensive and exhaustive hearings before a Congressional Subcommittee in 1959. *Hearings on Industrial Radioactive Waste Disposal Before the Special Subcomm. on Radiation of the Joint Comm. on Atomic Energy,* 86th Cong., 1st Sess. *passim* (1959) (5 Vols.). On the first day of the hearings, the following exchange took place between the Subcommittee Chairman and the first witness:

> "REPRESENTATIVE HOLIFIELD. So it would be accurate to say that the problem of permanent disposal of high-level waste has not been solved; that it is in a state of suspension; that we are holding these high-level wastes to the extent of many millions of gallons in a temporary custody type of control and that no decisions have been made as to the final disposal of the high-level wastes.
>
> "DR. WOLMAN. Unless there is some disclosure this week before this committee, which would modify your statement, I would say that that is correct." *Id.* at 10.

No such disclosure took place at these hearings or since then.

fully aware of the progress, or lack thereof, with respect to waste disposal.[48]

Against the background of this continuing flow of information Congress passed the Energy Reorganization Act of 1974.[49] One of the major reasons for the passage of that statute was the desire on the part of the Congress to separate the regulatory from the promotional functions of the old AEC.[50] The legislation was the subject of extensive and wide ranging hearings.[51] During the course of these hearings the status of waste disposal was explored.[52] Despite a full recognition that no waste disposal facilities

---

[48] *E.g., Hearings on Civilian Power Reactors before the Joint Comm. on Atomic Energy,* 91st Cong., 2d Sess., Pt. 3, 1423, *et seq.* (1970); *Hearings on Physical Research, Space Nuclear, and Nuclear Waste Management Progress before the Joint Comm. on Atomic Energy,* 92d Cong. 1st Sess., Pt. 3, *passim* (1971); *Hearings on H.R. 13731, H.R. 13732 Before the Joint Comm. on Atomic Energy,* 92d Cong., 2d Sess., Pt. 1, 425*ff.* (1972). *See also Hearings on Environmental Effects of Producing Electric Power before the Joint Comm. on Atomic Energy (Oct. 28, 29, 30, 31; Nov. 4, 5, 6 and 7, 1969, Jan. 27, 28, 29, 30, Feb. 24, 25 and 29, 1970),* 91st Cong., 1st Sess., Pts. 1 and 2 (1970); JOINT COMM. ON ATOMIC ENERGY, 91ST CONG., 1ST SESS., SELECTED MATERIALS ON ENVIRONMENTAL EFFECTS OF PRODUCING ELECTRIC POWER (Comm. Print 1969).

[49] As amended, 42 U.S.C. §§ 5801 *et seq.*

[50] *E.g., Hearings on S. 2744 Before the Subcomm. on Reorganization, Research, and International Organizations of the Senate Comm. on Government Operations,* 93d Cong., 1st Sess. 5, 7 (1973).

[51] *Hearings on S. 2135, S. 2744 Before the Subcomm. on Reorganization, Research and International Organizations of the Senate Comm. on Government Operations,* 93d Cong., 2d Sess. (1974); *Hearings on S. 2744, supra* note 50.

[52] *Hearings on S. 2135, S. 2744, supra* note 51 at 337-47.

existed or were under construction,[53] no moratorium on the licensing of nuclear power was declared or even suggested by the statute. On the contrary, the statute set up a new regulatory agency charged with the duty of regulating nuclear power and having as one of its primary responsibilities the licensing of new nuclear reactors. 42 U.S.C. §§ 5841 *et seq.*

The Court of Appeals, however, reads NEPA as being a Congressional declaration that the nation's entire nuclear

---

[53] H. CONF. REP. No. 93-1445, 93d Cong. 2d Sess., 3 1974 U.S. Code Cong. & Ad. News 5538, 5547. *See* S. REP. No. 93-980, 93d Cong., 2d Sess., 3 1974 U.S. Code Cong. & Ad. News 5470, 5521. Indeed, the House Conference Report highlights the fact that Congress was fully aware that no solution to waste disposal was in hand and the language of the statute was specifically altered in light of that fact.

> "In connection with licensing of ERDA facilities used primarily for the receipt and storage of high-level radioactive wastes resulting from licensed activities, the conference substitute follows the Senate language (subsection 203(3)) by deleting that portion of the House language (subsection 202(3)) relating to facilities 'in existence, under construction, or authorized or appropriated for by the Congress, on the date this Act becomes effective.' *The deletion is made because there are no such facilities.*
>
> "The conference substitute also retains the Senate language with respect to licensing of 'retrievable surface storage facilities' and other facilities for long-term storage of high-level radioactive waste. *Such facilities are not now in existence but will be developed in the near future for long-term, possibly permanent, storage of high-level radioactive wastes, including wastes from the licensed sector.*" 3 1974 U.S. Code Cong. & Ad. News at 5547 (emphasis supplied).

Since passage of the Energy Reorganization Act of 1974, Congress has continued its close monitoring of the waste disposal question. *See, e.g., Hearings on Assessing the Policies, Plans and Programs of the Executive Branch and the Nuclear Regulatory Commission for the Safe Storage and Disposal of Radioactive Wastes Produced in the Commercial Nuclear Fuel Cycle, supra* note 12.

power program should be contingent upon full "ventilation" and essential resolution of the waste disposal issue. This reading of NEPA — creating a *de facto* moratorium on nuclear power plant licensing — requires attribution to Congress of an intent to work a massive change in national policy with respect to nuclear power. NEPA's statutory language certainly contains no indication of such an intent. And in the absence of such an indication, in clear terms, none should be inferred. *See Train* v. *Colorado Public Interest Research Group,* 426 U.S. 1, 24 (1976). This Court has observed that "NEPA does not repeal by implication any other statute." *Aberdeen & Rockfish Railroad Co.* v. *SCRAP,* 422 U.S. 289, 319 (1975). *A fortiori,* NEPA cannot be read as practically nullifying statutes passed after its enactment.

In the *Power Reactor* case this Court upheld the Commission's reading of its organic statute as not requiring definitive safety findings prior to issuance of a construction permit. One of the bases for this Court's holding was the fact that Congress' Joint Committee on Atomic Energy had been repeatedly advised of the AEC's construction of its statute and yet the Joint Committee had made no suggestion of change in the AEC's procedure. On the basis of these facts this Court observed:

> "It may often be shaky business to attribute significance to the inaction of Congress, but under these circumstances, and considering especially the peculiar responsibility and place of the Joint Committee on Atomic Energy in the statutory scheme, we think it fair to read this history as a *de facto* acquiescence in and ratification of the commission's licensing procedure by Congress." 367 U.S. at 409.

With respect to waste disposal the history is not merely one of Congressional inaction, but of the enactment by Congress, with full appreciation of the status of waste disposal, of legislation contemplating contemporaneous and continued licensing of nuclear power plants. Such legislation was passed almost five years after the enactment of the statute (NEPA) which the Court of Appeals has construed to make all such licensing contingent upon resolution of the waste disposal issue. Given this history, the Court of Appeals' construction of NEPA cannot stand.

IV. THE DECISION OF THE COURT OF APPEALS CONSTITUTES A SUBSTITUTION BY THAT COURT OF ITS JUDGMENT FOR THAT OF THE EXPERT COMMISSION IN TECHNICAL MATTERS COMMITTED BY CONGRESS TO THE COMMISSION'S DISCRETION

A. Introduction

Although the Court of Appeals couched its opinion in terms of supposed procedural defaults and gaps in the rulemaking record, in fact the court's decision constitutes a wholesale substitution of judicial judgment for that of the Commission. The defects which the court perceived in the Commission's rulemaking proceeding either did not exist in fact or did not constitute defects as a matter of law.

The specific faults in the rulemaking proceeding which the Court of Appeals detailed in its corrected opinion were: first, a number of failures in the Environmental Survey to discuss specific matters which the Court of Appeals deemed essential, 547 F.2d at 649-51; *App.* 56-61; and, second, a supposed self-interest on the part of one witness, Dr. Pittman, 547 F.2d at 647 n. 43; *App.* 52 n. 43. There were no other grounds given in the court's corrected opinion for its dissatisfaction with the Commission.[54] In fact, however, the

[54] However, in its original opinion the court referred repeatedly to an alleged failure by the Hearing Board to question Dr. Pittman,

record before the Commission discloses an ample basis for its decision.

B. The Alleged Gaps in the Rulemaking Record Found by the Court of Appeals Provide No Basis for the Result Reached

The Court of Appeals referred to a number of items which the court said were not discussed in the rulemaking record but, apparently in its view, should have been. These "gaps" either (1) resulted from the fact that meaningful information would only be available in the context of a specific waste disposal facility proposal; (2) were filled by Dr. Pittman's answers to Hearing Board questions; (3) were such that the filling of them was unnecessary to the decision to be made; or (4) did not, in fact, exist.

After stating that a portion of Dr. Pittman's testimony was basically a description of the retrievable surface storage facility, accompanied by several schematic drawings, the Court of Appeals said:

> "These show the facility will have a cooling system, a transfer area and storage basins, but do not attempt to describe how they will be built and operated, what materials will be used, where such a facility might be located, or what it might cost to build and operate." 547 F.2d at 648-49; *App.* 56.

At another point in the opinion, the following appears:

> "Other than the broad reference to 'structural strength, plant security, etc., to withstand credible overt forces of

App. 61 & n. 53, 68 n. 59, and suggested a supposed disparity in the Hearing Board's treatment of Dr. Pittman and the respondents' witnesses, *App.* 61 n. 53, 547 F.2d at 650 n. 50; *App.* 58-59, n. 50. This suggestion, and most, but not all, of the references to the supposed failure to question, were removed by the court's order of correction. *App.* 88.

> man', there is no discussion of how the facility would be protected from terrorism." 547 F.2d at 650; *App.* 58.

And in further criticism of the discussion of the storage facility, the Court of Appeals stated:

> "There is no discussion of how 'adequate human surveillance and maintenance' can be assured for the periods involved, nor what the long term costs of such a commitment are, nor of the dangers if surveillance is not maintained." 547 F.2d at 650; *App.* 60.

All of these criticisms call for types of information which by their very nature are design and site specific. The Environmental Survey, however, was not intended to be, indeed could not be, design or site specific. *App.* 760-61. The Court of Appeals' criticisms point up the wisdom of the principle, enunciated by this Court, in *Kleppe,* that in the absence of a specific proposal ". . . there is nothing that could be the subject to the analysis envisioned by [NEPA] for an impact statement." 427 U.S. at 401. Neither the Pittman testimony nor the rulemaking proceeding as a whole was intended to finalize a storage facility design. NEPA does not require the commencement or writing of what amounts to a full environmental impact statement for such a facility at this juncture and, indeed, leaves to the Commission's discretion the timing of such a process. *Kleppe* v. *Sierra Club,* 427 U.S. at 404-406.

In any event, with respect to the storage facility, Dr. Pittman made clear in answering questions put by the Hearing Board why the details of design and construction were not of concern to the issue at hand.[55] In response to questions

[55] The Court of Appeals was unaware of the Pittman dialogue when it first issued its decision. *Compare App.* 61 & n. 53, 68 n. 59 *with App.* 88. The court also appears to have been unaware of the oral testimony of Mr. Smiley of the Commission staff. The Court of Appeals referred to a lack of discussion concerning pro-

by Board Member Steindler, Dr. Pittman explained that the construction of the retrievable surface storage facility required no new technology. *App.* 831-32. The facility could be constructed entirely on the basis of existing materials and methods.[56] *Id.* This testimony was never challenged, and on that basis the Commission properly concluded that the storage facility could be constructed and would perform in a way providing reasonable assurance that its quantifiable environmental impacts would not exceed those set out in Table S-3. *App.* 391-92.

The Court of Appeals discussed at some length the possibility of a "meltdown," which could occur if cooling capa-

---

tection of storage facilities from terrorism. 547 F.2d at 650; *App.* 58. However, in response to Hearing Board questions arising out of the testimony of Dr. Kendall for the intervenors, Mr. Smiley testified at length on the problem of "safeguards" in light of Dr. Kendall's expressed concern about diversion of nuclear materials by terrorists at some point in the fuel cycle. *App.* 922-30. Mr. Smiley's testimony was not design specific, but he persuasively articulated a basis for the staff's view (apparently adopted by the Commission) that safeguarding the fuel cycle from terrorism was feasible using current security precautions. To the extent he and a colleague listed specific methods and devices in connection with fuel reprocessing facilities, *App.* 924, 929-30, such methods or adaptions thereof would, of course, be effective at any facility at any point in the fuel cycle, including the temporary storage facility.

[56] Indeed, the consensus among knowledgeable persons appears to be that technologies exist to ensure proper long term disposal of nuclear waste. What remains for government decision makers is to make the optimum choice among the capable and available technologies. *See App.* 969; *Hearings on Assessing the Policies, Plans, and Programs of the Executive Branch and the Nuclear Regulatory Commission for the Safe Storage and Disposal of Radioactive Wastes Produced in Commercial Nuclear Fuel Cycle, supra,* note 12 at 23 (remarks of Secretary Elliot L. Richardson). Similarly it should be noted that the technology for storing plutonium also exists at this time. *App.* 815.

bility were lost at a storage facility. 547 F.2d at 649-50; *App.* 56-59. The Court of Appeals first stated:

> "Decaying radioactive waste spontaneously gives off substantial heat and '[s]hould adequate provisions not be made to remove this heat . . . , the waste and the canister would melt.' [Record cite.] A 'meltdown' would result in what Dr. Pittman calls a 'situation of considerable concern,' which would involve the 'loss of some fraction of the isolation of the radioactive material from the environment.' [Record cite.] No attempt is made to describe how serious a radioactivity hazard would be presented." 547 F.2d at 649; *App.* 56.

The court also faulted the Commission for not supplying citations to its own "studies" of heat removal methods it had done which had served to permit a conclusion that water or air was the best transfer medium for such systems. 547 F.2d at 649; *App.* 56. And, after quoting at length Dr. Pittman's reasons for concluding that a meltdown is an incredible event,[57] 547 F.2d at 649-50; *App.* 57-58,

---

[57] Dr. Pittman explained that, in order for a meltdown to occur, it would be necessary to have a complete cooling system failure. This could only occur if redundant (*i.e.*, additional and duplicate as to function) essential systems all failed, which was unlikely in light of the specifications to which the facility would be built, including designing for earthquake and tornado loads and anti-terrorist features. *App.* 782. In addition, modular construction would subject only a small number of canisters full of waste to any single event. Having pointed out the unlikelihood that the prerequisite cooling system failure would occur to begin with, Dr. Pittman then noted that even if this occurred, 16 hours would elapse before the cooling water would begin to boil away, that a week would be needed to boil all the water away, and that then an additional day of no water would be required before melting would commence. Thus over eight days would be available to repair the cooling system before melt would commence. *App.* 782-83. On this basis, Dr. Pittman concluded, and properly so, that:

> "The number of sequential failures required of highly reliable systems, combined with the long periods available for repair and recovery from each, result in the judgment that this is an incredible accident." *App.* 783.

the Court of Appeals complained that Dr. Pittman's conclusions were "unadorned," 547 F.2d at 650; *App.* 58, and that he had not explained the "[v]arious corrective measures" which could be taken to prevent meltdown in the event of cooling system failure. 547 F.2d at 650; *App.* 59.

Again the answer to the Court of Appeals' concerns begins with the Pittman answers to Hearing Board questions. Dr. Pittman testified in response to Board Member Steindler:

> "There is nothing new being developed in the engineered storage facility. We are looking at better techniques of removing the heat than may be (sic) used before. *But it is purely an engineering application of a known technology we are using.*" *App.* 832 (emphasis supplied).

Thus the Commission could, and did, recognize the following facts: First, proper and redundant heat cooling systems can be built with known technology. Second, even if the highly unlikely total failure of redundant systems occurred there would be a period of eight days to fix the cooling system before melt would occur.[58] On this basis the "meltdown" was considered incredible.

As to the Court of Appeals' complaint that the seriousness of the environmental impact of a meltdown is not detailed, the short answer is that proper NEPA analysis requires no such detail. The construction of a storage facility does not create an accident, it creates the "risk" of an accident. This creation of a risk (not the happening of the accident) is the environmental "impact" of the "proposed action." Thus, the Commission has long analyzed the environmental impact of possible reactor "accidents" by

[58] *Supra* note 57. It should be kept in mind that any cooling system in any setting is nothing but pumps, valves, conduits, and heat exchangers. Cooling systems are not complex mechanisms. *See App.* 796, 798.

balancing the likelihood of the accident occurring against the impact which would result. This requires no analysis of the incredible (so-called Class 9) accident which has the potential for extremely serious environmental consequences but which has a vanishingly small probability of occurrence.[59] This approach has received judicial sanction, *Carolina Environmental Study Group* v. *United States*, 510 F.2d 796, 799 (D.C. Cir. 1975); *see also Ecology Action* v. *AEC*, 492 F.2d 998, 1002 (2d Cir. 1974), and properly so. And it is precisely this approach that was followed by the Commission in the Environmental Survey.

The Court of Appeals expressed displeasure that the Environmental Survey contained no discussion of "other acceptable geological disposal concepts," in addition to burial in salt beds, which the Commission has under consideration. 547 F.2d at 651; *App.* 60-61. It may be that this concern was another aspect of the court's interest in ventilation, since, later in its opinion, the court recognized that there was no need to consider alternate disposal methods if the currently proposed method is given a conservative and credible assessment. 547 F.2d at 653 n. 57; *App.* 67 n. 58. In a similar vein the court faulted the Commission for not explaining what subsequent events had caused the Commission to defer construction of a salt bed repository beyond the mid-1970's, 547 F.2d at 648; *App.* 54, and questioned Dr. Pittman's "optimism" concerning the bedded salt concept, 547 F.2d at 650-51; *App.* 60. It is difficult to see how such a discussion is relevant to the particular subject of the Environmental Survey. In any event, as the opinion itself reveals, 547 F.2d at 648 n. 46; *App.* 54 n. 46, the problem which mandated deferral at the time was the geology of specific sites which were considered, not the concept of using bedded salt.[60]

[59] *See* Proposed Annex to 10 C.F.R. 50, App. D, 36 Fed. Reg. 22851 (Dec. 1, 1971).

[60] Indeed the intervenors, in their comments following the oral hearing agreed that "bedded salt" was a "quite promising" concept

As seen from the foregoing, the specific "gaps" referred to by the Court of Appeals cannot, on any fair reading of the record, be said to undercut the ultimate result reached by the Commission. None of the additional information sought by the Court of Appeals was necessary for the rule to "pass muster" under the Administrative Procedure Act and the absence of any or all of such information is not fatal to the environmental analysis even assuming any was required by NEPA at the time.

C. Insofar as the Court of Appeals' Decision is Based Upon Its Holding that Dr. Pittman's Position Undermined His Credibility, it is in Error

In a footnote to its description of Dr. Pittman's position as head of the Commission's division responsible for development, construction, and operation of waste storage facilities the Court of Appeals states:

> "In *Portland Cement Ass'n* v. *Ruckelshaus,* [486 F.2d 375, 400 n. 95 (D.C. Cir. 1973), *cert. denied,* 417 U.S. 921 (1974)], the court pointed out that when a 'principal source of reliance by the agency' was 'peculiarly subject to considerations of self-interest, more might be required than mere comments.' Evaluation of a program by the in-house staff member charged with responsibility for administering it falls within the intendment of that statement." 547 F.2d at 647 n. 43; *App.* 52 n. 43.

This amounts to a holding that an agency must apply a more rigorous than normal test of credibility to testimony

for so much of the high-level waste as was comprised of fission products. *App.* 1093. The intervenors did argue that salt beds were not the best choice for "transuranics," *e.g.*, Pu^{239}. However, the waste disposal Dr. Pittman was dealing with assumed reprocessing which means not disposing of the transuranics but recovery and use thereof. *See* pp. 9-10 *supra.* Thus in the context of the rulemaking Dr. Pittman's "optimism" about the use of salt, *see* 547 F.2d at 650-51; *App.* 60, was shared by all parties, including the intervenors.

of its own staff personnel if those personnel have significant administrative responsibilities in the areas about which they are testifying.

There is no basis in law for such a rule. Indeed the usual practice is that public officials testifying within their expertise are, if anything, to be accorded greater deference than other witnesses. *See Pell* v. *Procunier,* 417 U.S. 817, 827 (1974); *Saxbe* v. *Washington Post Co.,* 417 U.S. 843, 849 (1974). Certainly its own earlier decision cited by the Court of Appeals *(Portland Cement)* provides no basis for the rule espoused. In *Portland Cement* the evidence which was characterized as possibly tainted by self-interest concerned the ability of certain emission control devices to meet federal standards. That evidence had been furnished by officers of private companies which were the vendors of such equipment, *i.e.,* by parties and individuals with a direct financial interest in the decision of the agency. Dr. Pittman had no financial or other discernible interest whatsoever which would be served or thwarted by any given decision by the Commission with respect to the rulemaking. Indeed, Dr. Pittman, by virtue of his position as a member of the Commission's staff, had only one duty or interest in the proceeding, the representation of the public interest.[61]

Indeed, even if the Court of Appeals' novel formulation of the standard of credibility to be applied to agency per-

[61] This court has observed that "... no man is an absolutely disinterested witness where his testimony relates to the question of the performance or non-performance of a duty which he owed on account of the position which he occupied." *Texas & Pacific Railway Co.* v. *Carlin,* 189 U.S. 355, 361 (1903). However, Dr. Pittman's performance of his duties was not at issue in this proceeding. His function was to opine on the feasibility and effects of a certain type of waste facility.

sonnel were good law, the court had no right to reverse the Commission's decision because of the court's judgment that Dr. Pittman was not credible. This Court has made clear that the right of a reviewing court to substitute its judgment for that of an agency with respect to the credibility of testimony is extremely narrow. Credited testimony should be rejected only if the record reveals that the testimony "carries its own death wound." *NLRB* v. *Pittsburgh S.S. Co.*, 337 U.S. 656, 660 (1949). Dr. Pittman's testimony hardly "carries its own death wound". Indeed, it stands unchallenged in the record.

Thus, to the extent the Court of Appeals' decision rests upon its view that the credibility of Dr. Pittman's testimony could be questioned because of his employment, the decision was based upon an erroneous view of the law of evidence, and, in addition, constituted an impermissible substitution of the court's judgment for that of an agency. Particularly is this so where, as here, the matters which the agency and its staff were addressing were of a highly technical nature and fell squarely within the ambit of the agency's competence. *See FPC* v. *Florida Power & Light Co.*, 404 U.S. 453, 463-64 (1972).

D. The Record Rebuts the Court of Appeals' Generalized Criticisms of the Commission's Reliance on its Staff Including Dr. Pittman

The most oft repeated chastisement of the Commission's conduct of the rulemaking proceeding in the Court of Appeals' decision, as originally issued, was an alleged failure on the part of the Hearing Board to question Dr. Pittman. *App.* 61 & n. 53; *App.* 68 n. 59. *See also App.* 62, 65, 66. Three direct references to this supposed fact were made. After a lengthy description and characterization of

the Pittman testimony, *App.* 52-61, the Court of Appeals stated:

> "When Dr. Pitman finished, no questions were put to him by the hearing board." *App.* 61.

To this statement was appended a footnote:

> "One short comment was made concerning commercial disposal of low-level waste, [record citation omitted], as was the observation, quoted *supra,* note 48, regarding failure to provide back-up documentation.
>
> "The board's quiescence regarding Dr. Pittman is in marked contrast to its often hostile questioning of expert witnesses for the intervenors. See, *e.g., supra* note 50." *App.* 61 n. 53.

The third direct reference to the supposed lack of questioning of Dr. Pittman appears in a footnote in which the Court of Appeals, *inter alia,* distinguished the facts in the case before it from those involved in its earlier decision in *International Harvester Co.* v. *Ruckelshaus,* 478 F.2d 615 (D.C. Cir. 1973). *App.* 68 n. 59. Acknowledging that the Commission's rulemaking procedures in this case were "virtually identical on paper" with those approved in *International Harvester,* the Court of Appeals said:

> "However in practice the procedures were administered quite differently in International Harvester: '[T]he hearing officers did not propound the pre-submitted questions like robots; they were charged with conducting a hearing for the purpose of focusing information needed for decision and they quite appropriately "followed up" on questions.' [478 F.2d at 631]. *In this case the board members asked no questions whatsoever of Dr. Pittman. See supra,* note 53." *App.* 68 n. 59. (Emphasis supplied.)

That the alleged failure of the Hearing Board to question Dr. Pittman was the gravamen of the decision as originally written is apparent from the "indirect" references in the opinion to this fact. The Court of Appeals' opinion con-

tains a lengthy listing of supposedly significant and unanswered questions, 547 F.2d at 648-51; *App.* 54-61, arising out of the court's reading of the waste management section of the Environmental Survey which was "based on Dr. Pittman's statement," 547 F.2d at 651; *App.* 61. This is followed by a statement that the court did not dispute the conclusions. *Id.* However, the Court of Appeals held that it could not uphold these conclusions because the reasoning and data supporting them were not "spread out in detail." *Id.* There then appears the following basis for rejecting the Pittman testimony as an adequate foundation for the Commission's rule:

> "The problem with the conclusory quality of Dr. Pittman's statement — *and the complete absence of any probing of its underlying basis* — is that it frustrates oversight by anyone: Commission, intervenors, court, legislature or public. *Given the opportunity, Dr. Pittman might have provided convincing answers to many of the questions which his statement leaves untouched. Since that did not occur, however,* his judgments must either be accepted at face value, or rejected out of hand." 547 F.2d at 651; *App.* 61-62. (Emphasis supplied.)

Subsequently, after its discussion of the Commission's supposedly summary treatment of the waste disposal issues designated in the Hearing Board report, the Court of Appeals concluded that the Commission's action could not "pass muster as reasoned decision making", 547 F.2d at 653; *App.* 66, because:

> "In substantial part, the materials *uncritically relied on by the Commission* in promulgating this rule consist of extremely vague assurances by agency personnel that problems as yet unsolved will be solved. That is an insufficient record to sustain a rule limiting consideration of the environmental waste disposal to the numerical values in Table S-3 . . . . *Not only were the generalities relied on in this case not subject to rigorous probing — in any form* — but when apparently substantial criticism

> were brought to the Commission's attention, it simply ignored them, or brushed them aside without answer." 547 F.2d at 653; *App.* 65-66.

After the decision was issued the Commission filed with the Court of Appeals a Motion for Stay of Mandate and Correction of the Opinion. *App.* 4. The Commission pointed out that Dr. Pittman had in fact been questioned by the Hearing Board and attached the relevant portions of the rulemaking transcript. *App.* 830-35. The Court of Appeals responded with a *per curiam* order which deleted only what have been referred to above as the three "direct" references to the alleged failure of the Hearing Board to question Dr. Pittman. *App.* 88. In particular, the textual statement appearing at the close of the description of the Pittman statement (*App.* 61, quoted *supra,* p. 60) was deleted. All of original footnote 53 (quoted *supra,* p. 60) was deleted. And the last sentence of the paragraph discussing *International Harvester* in original footnote 59 (quoted *supra,* p. 61 with emphasis) was deleted. No changes were made in what have been referred to above as the "indirect" references.

At this juncture it should be noted that, in and of themselves, the deletions made cast substantial doubt upon the reasoning behind significant portions of the decision as originally issued. The deletion of original footnote 53 removes the charge that the Hearing Board treated the respondents' witnesses in a manner disparate from those of the Commission staff.[62] Thus the result reached by the

---

[62] The suggestion that the Commission had accorded disparate treatment to the respondents' witnesses had no basis in fact. The Court of Appeals made the charge on the basis of a colloquy involving the Hearing Board Chairman, a witness, and one of the intervenors' attorneys. *App.* 58-59, n. 50. This exchange is later offered as an example of the Hearing Board's "often hostile questioning of expert witnesses by the intervenors." *App.* 61 n. 53

Court of Appeals can no longer be upheld on the theory that the intervenors were somehow treated unfairly or like "interlopers." See *Office of Communication of the United Church of Christ* v. *FCC*, 425 F.2d 543 (D.C. Cir. 1969). Second, the deletion of the sentence from the paragraph in original footnote 59 (now 547 F.2d at 654, n. 58) discussing *International Harvester* removes the Court of Appeals' only articulated basis for distinguishing the two cases.

Prescinding from the foregoing, these deletions severely undercut the basic rationale of the entire decision. The Court of Appeals provided no new explanation for distinguishing *International Harvester*. Thus, assuming *International Harvester* to be good law, reversal is required. Nor did the Court of Appeals explain why the "indirect references," to the failure to question Dr. Pittman, which are key to the result reached, had continued validity. This failure to explain itself admits of only two possible explanations. First, there is no basis for treating these key statements as still valid, or, second, that the statements are still valid because in the Court of Appeals' judgment the questioning was not "probing" or "rigorous" enough or not properly directed. If the former explanation is true, reversal is required. If the latter is the explanation, it can-

---

(now withdrawn). The supposedly "hostile" exchange quoted in n. 50 by the Court of Appeals is quoted in a truncated version. We invite this Court's attention to the full record of the exchange. *App.* 907-10. A review of that portion of the record reveals a courteous inquiry by the Chairman on the issue of whether the question of terrorist activity was beyond the scope of the rulemaking in light of the limits the Commission had set in the notice of the proceeding. The Chairman clearly stated that his question was not to be construed as technical interrogation and he made clear his worry was the Board's jurisdiction to explore the issue.

not stand. Such a holding is a clear substitution by the Court of Appeals of its judgment for that of the Commission and its Hearing Board (which included two technical members) as to what questioning of Dr. Pittman was necessary to assure that Dr. Pittman's statement was correct on technical matters. In short, the Court of Appeals was no longer basing its result on a procedural deficiency, but rather upon its view of what information an expert Board needs in order to assure itself of the validity of data or testimony it is relying on. In so doing the Court of Appeals invaded an area committed to the agency's discretion; this mandates reversal of that court's decision.

V. THE COURT OF APPEALS ERRED IN BASING FINDINGS AND CONCLUSIONS UPON ARTICLES PUBLISHED LONG AFTER THE RULEMAKING CLOSED

A remarkable aspect of the Court of Appeals' lengthy criticism of Dr. Pittman, 547 F.2d at 648-51; *App.* 55-61, is that the court relies upon no evidence in the record of the rulemaking as conflicting with Dr. Pittman's testimony. Rather the closest things to "factual" bases for the Court of Appeals' criticisms are a number of articles cited by the court in various footnotes. 547 F.2d at 648 nn. 46 & 47, 650 n. 51, 651 n. 52; *App.* 54 n. 46, 55 n. 47, 60 n. 51; 60 n. 52. All of the articles were published in 1975, two years after the rulemaking hearing and, in most cases, over a year after the rule was promulgated. Each of these articles was treated by the Court of Appeals in its analysis as if it were as much a part of the agency record as Dr. Pittman's uncontradicted testimony. In *FPC* v. *Transcontinental Gas Corporation*, 423 U.S. 326 (1976), this Court observed:

> ". . . we have consistently expressed the view that ordinarily review of administrative decisions is to be confined to 'consideration of the decision of the agency and of the

> evidence on which it was based.' *United States* v. *Carlo Bianchi & Co.*, 373 U.S. 709, 714-15 (1963). '[T]he focal point for judicial review should be the administrative record already in existence, *not some new record made initially in the reviewing court.' Camp* v. *Pitts*, 411 U.S. 138, 142 (1973)." 423 U.S. at 331-32 (emphasis supplied).

In the case at bar, the record, at least insofar as it was used to show controversy with Dr. Pittman was not made "in the reviewing court," it was made *by* the reviewing court. Such a practice has no basis in law and should not be sanctioned by this Court.

CONCLUSION

The decision of the Court of Appeals on review in *Vermont Yankee,* No. 76-419, should be reversed.

Respectfully submitted,

THOMAS G. DIGNAN, JR.
G. MARSHALL MORIARTY
WILLIAM L. PATTON
R. K. GAD III
225 Franklin Street
Boston, Massachusetts 02110

Of Counsel:

ROPES & GRAY
225 Franklin Street
Boston, Massachusetts 02110

STATUTES AND REGULATIONS INVOLVED

Administrative Procedure Act, 5 U.S.C. § 553

(a) This section applies, according to the provisions thereof, except to the extent that there is involved —

(1) a military or foreign affairs function of the United States; or

(2) a matter relating to agency management or personnel or to public property, loans, grants, benefits, or contracts.

(b) General notice of proposed rule making shall be published in the Federal Register, unless persons subject thereto are named and either personally served or otherwise have actual notice thereof in accordance with law. The notice shall include —

(1) a statement of the time, place, and nature of public rule making proceedings;

(2) reference to the legal authority under which the rule is proposed; and

(3) either the terms or substance of the proposed rule or a description of the subjects and issues involved.

Except when notice or hearing is required by statute, this subsection does not apply —

(A) to interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice; or

(B) when the agency for good cause finds (and incorporates the finding and a brief statement of reasons therefor in the rules issued) that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest.

(c) After notice required by this section, the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation. After consideration of the relevant matter presented,

the agency shall incorporate in the rules adopted a concise general statement of their basis and purpose. When rules are required by statute to be made on the record after opportunity for an agency hearing, sections 556 and 557 of this title apply instead of this subsection.

(d) The required publication or services of a substantive rule shall be made not less than 30 days before its effective date, except —

(1) a substantive rule which grants or recognizes an exemption or relieves a restriction;

(2) interpretative rules and statements of policy; or

(3) as otherwise provided by the agency for good cause found and published with the rule.

(e) Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule. Pub.L. 89-554, Sept. 6, 1966, 80 Stat. 383.

Atomic Energy Act of 1954

"CHAPTER 1. DECLARATION, FINDINGS, AND PURPOSE

Declaration. 42 U.S.C. sec. 2011.

"SECTION 1. DECLARATION. — Atomic energy is capable of application for peaceful as well as military purposes. It is therefore declared to be the policy of the United States that —

"a. the development, use, and control of atomic energy shall be directed so as to make the maximum contribution to the general welfare, subject at all times to the paramount objective of making the maximum contribution to the common defense and security; and

"b. the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise.

Findings. 42 U.S.C. sec. 2012.

"SEC. 2. FINDINGS. — The Congress of the United States hereby makes the following findings concerning the development, use, and control of atomic energy:

"a. The development, utilization, and control of atomic energy for military and for all other purposes are vital to the common defense and security.

"c. The processing and utilization of source, byproduct, and special nuclear material affect interstate and foreign commerce and must be regulated in the national interest.

"d. The processing and utilization of source, byproduct, and special nuclear material must be regulated in the national interest and in order

to provide for the common defense and security and to protect the health and safety of the public.

"e. Source and special nuclear material, production facilities, and utilization facilities are affected with the public interest, and regulation by the United States of the production and utilization of atomic energy and of the facilities used in connection therewith is necessary in the national interest to assure the common defense and security and to protect the health and safety of the public.

"f. The necessity for protection against possible interstate damage occurring from the operation of facilities for the production or utilization of source or special nuclear material places the operation of those facilities in interstate commerce for the purposes of this Act.

"g. Funds of the United States may be provided for the development and use of atomic energy under conditions which will provide for the common defense and security and promote the general welfare.

"i. In order to protect the public and to encourage the development of the atomic energy industry, in the interest of the general welfare and of the common defense and security, the United States may make funds available for a portion of the damages suffered by the public from nuclear incidents, and may limit the liability of those persons liable for such losses.

Purpose.
42 U.S.C.
sec. 2013.

"SEC. 3. PURPOSE. — It is the purpose of this Act to effectuate the policies set forth above by providing for —

"a. a program of conducting, assisting, and fostering research and development in order to encourage maximum scientific and industrial progress;

"b. a program for the dissemination of unclassified scientific and technical information and for the control, dissemination, and declassification of Restricted Data, subject to appropriate safeguards, so as to encourage scientific and industrial progress;

"c. a program for Government control of the possession, use, and production of atomic energy and special nuclear material, whether owned by the Government or others, so directed as to make the maximum contribution to the common defense and security and the national welfare, and to provide continued assurance of the Government's ability to enter into and enforce agreements with nations or groups of nations for the control of special nuclear materials and atomic weapons.

"d. a program to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public;

"e. a program of international cooperation to promote the common defense and security and to make available to cooperating nations the benefits of peaceful applications of atomic energy as widely as expanding technology and considerations of the common defense and security will permit; and

"f. a program of administration which will be consistent with the foregoing policies and programs, with international arrangements, and with agreements for cooperation, which will enable the Congress to be currently informed so as to take further legislative action as may be appropriate.

"CHAPTER 16. JUDICIAL REVIEW AND ADMINISTRATIVE PROCEDURE

General.
80 Stat. 381-388, 5 U.S.C. 551-559.
42 U.S.C. sec. 2231.

"SEC. 181. GENERAL. — The provisions of the Administrative Procedure Act (Public Law 404, Seventy-ninth Congress, approved June 11, 1946) shall apply to all agency action taken under this Act, and the terms 'agency' and 'agency action' shall have the meaning specified in the Administration Procedure Act: *Provided, however,* That in the case of agency proceedings or actions which involve Restricted Data or defense information, the Commission shall provide by regulation for such parallel procedures as will effectively safeguard and prevent disclosure of Restricted Data or defense information to unauthorized persons with minimum impairment of the procedural rights which would be available if Restricted Data or defense information were not involved.

License applications.
42 U.S.C. sec. 2232.

"SEC. 182. LICENSE APPLICATIONS. —

"a. Each application for a license hereunder shall be in writing and shall specifically state

such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant, the character of the applicant, the citizenship of the applicant, or any other qualifications of the applicant as the Commission may deem appropriate for the license. In connection with applications for licenses to operate production or utilization facilities, the applicant shall state such technical specifications, including information of the amount, kind, and source of special nuclear material required, the place of the use, the specific characteristics of the facility, and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization or production of special nuclear material will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public. Such technical specifications shall be a part of any license issued. The Commission may at any time after the filing of the original application, and before the expiration of the license, require further written statements in order to enable the Commission to determine whether the application should be granted or denied or whether a license should be modified or revoked. All applications and statements shall be signed by the applicant or licensee. Applications for, and statements made in connection with, licenses under sections 103 and 104 shall be made under oath or affirmation. The Commission may require any other applications or statements to be made under oath or affirmation.

ACRS Report.

"b. The Advisory Committee on Reactor Safeguards shall review each application under section 103 or section 104 b. for a construction permit or an operating license for a facility, any application under section 104 c. for a construction permit or an operating license for a testing facility, any application under section 104 a. or c. specifically referred to it by the Commission, and any application for an amendment to a construction permit or an amendment to an operating license under section 103 or 104 a., b., or c. specifically referred to it by the Commission, and shall submit a report thereon which shall be made part of the record of the application and available to the public except to the extent that security classification prevents disclosure.

Commercial power.

"c. The Commission shall not issue any license under section 103 for a utilization or production facility for the generation of commercial power until it has given notice in writing to such regulatory agency as may have jurisdiction over the rates and services incident to the proposed activity; until it has published notice of the application in such trade or news publications as the Commission deems appropriate to give reasonable notice to municipalities, private utilities, public bodies, and cooperatives which might have a potential interest in such utilization or production facility; and until it has published notice of such application once each week for four consecutive weeks in the Federal Register, and until four weeks after the last notice.

Notice in F.R.

"d. The Commission, in issuing any license for a utilization or production facility for the generation of commercial power under section 103, shall give preferred consideration to applications for such facilities which will be located in high cost power areas in the United States if there are conflicting applications for a limited opportunity for such license. Where such conflicting applications resulting from limited opportunity for such license include those submitted by public or cooperative bodies such applications shall be given preferred consideration.

"SEC. 183. TERMS OF LICENSES. — Each license shall be in such form and contain such terms and conditions as the Commission may, by rule or regulation, prescribe to effectuate the provisions of this Act, including the following provisions:

Terms of licenses. 42 U.S.C. sec. 2233.

"b. No right to the special nuclear material shall be conferred by the license except as defined by the license.

"c. Neither the license nor any right under the license shall be assigned or otherwise transferred in violation of the provisions of this Act.

"d. Every license issued under this Act shall be subject to the right of recapture or control reserved by section 108, and to all of the other provisions of this Act, now or hereafter in effect and to all valid rules and regulations of the Commission.

Inalienability of licenses. 42 U.S.C. sec. 2234.

"SEC. 184. INALIENABILITY OF LICENSES.— No license granted hereunder and no right to utilize or produce special nuclear material granted hereby shall be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of any license to any person, unless the Commission shall, after securing full information, find that the transfer is in accordance with the provisions of this Act, and shall give its consent in writing. The Commission may give such consent to the creation of a mortgage, pledge, or other lien upon any facility or special nuclear material, owned or thereafter acquired by a licensee, or upon any leasehold or other interest in such facility, and the rights of the creditors so secured may thereafter be enforced by any court subject to rules and regulations established by the Commission to protect public health and safety and promote the common defense and security.

Construction permits. 42 U.S.C. sec. 2235.

"SEC. 185. CONSTRUCTION PERMITS. — All applicants for licenses to construct or modify production or utilization facilities shall, if the application is otherwise acceptable to the Commission, be initially granted a construction permit. The construction permit shall state the earliest and latest dates for the completion of the construction or modification. Unless the construction or modification of the facility is completed by the completion date, the construction permit shall expire, and all rights thereunder be forfeited, unless upon good cause shown, the Commission extends the completion

date. Upon the completion of the construction or modification of the facility, upon the filing of any additional information needed to bring the original application up to date, and upon finding that the facility authorized has been constructed and will operate in conformity with the application as amended and in conformity with the provisions of this Act and of the rules and regulations of the Commission, and in the absence of any good cause being shown to the Commission why the granting of a license would not be in accordance with the provisions of this Act, the Commission shall thereupon issue a license to the applicant. For all other purposes of this Act, a construction permit is deemed to be a 'license'.

"SEC. 186. REVOCATION. —

Revocation. 42 U.S.C. sec. 2236.

"a. Any license may be revoked for any material false statement in the application or any statement of fact required under section 182, or because of conditions revealed by such application or statement of fact or any report, record, or inspection or other means which would warrant the Commission to refuse to grant a license on an original application, or for failure to construct or operate a facility in accordance with the terms of the construction permit or license or the technical specifications in the application, or for violation of, or failure to observe any of the terms and provisions of this Act or of any regulation of the Commission.

"b. The Commission shall follow the provisions of section 9(b) of the Administrative Procedure Act in revoking any license.

80 Stat. 388, 5 U.S.C. 558(b).

"c. Upon revocation of the license, the Commission may immediately retake possession of all special nuclear material held by the licensee. In cases found by the Commission to be of extreme importance to the national defense and security or to the health and safety of the public, the Commission may recapture any special nuclear material held by the licensee or may enter upon and operate the facility prior to any of the procedures provided under the Administrative Procedure Act. Just compensation shall be paid for the use of the facility.

5 U.S.C. 551.

Modification of license. 42 U.S.C. sec. 2237.

"SEC. 187. MODIFICATION OF LICENSE. — The terms and conditions of all licenses shall be subject to amendment, revision, or modification, by reason of amendments of this Act, or by reason of rules and regulations issued in accordance with the terms of this Act.

Continued operation of facilities. 42 U.S.C. sec. 2238.

"SEC. 188. CONTINUED OPERATION OF FACILITIES. — Whenever the Commission finds that the public convenience and necessity or the production program of the Commission requires continued operation of a production facility or utilization facility the license for which has been revoked pursuant to section 186, the Commission may, after consultation with the appropriate regulatory agency, State or Federal, having jurisdiction, order that possession be taken of and such facility be operated for such period of time as the public convenience and necessity or the production program of the Commission may, in the judgment of the Commission, require, or until a license for the operation of the facility

shall become effective. Just compensation shall be paid for the use of the facility.

Hearings and judicial review. 42 U.S.C. sec. 2239.

"SEC. 189. HEARINGS AND JUDICIAL REVIEW. —

"a. In any proceeding under this Act, for the granting, suspending, revoking, or amending of any license or construction permit, or application to transfer control, and in any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees, and in any proceeding for the payment of compensation, an award, or royalties under sections 153, 157, 186 c., or 188, the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding. The Commission shall hold a hearing after thirty days' notice and publication once in the Federal Register, on each application under section 103 or 104 b. for a construction permit for a facility, and on any application under section 104 c. for a construction permit for a testing facility. In cases where such a construction permit has been issued following the holding of such a hearing, the Commission may, in the absence of a request therefor by any person whose interest may be affected, issue an operating license or an amendment to a construction permit or an amendment to an operating license without a hearing, but upon thirty days' notice and publication once in the Federal Register of its intent to do so. The Commission may dispense with such thirty days' notice and publication with respect to any application for an amendment to a construction per-

Publication in F.R.

mit or an amendment to an operating license upon a determination by the Commission that the amendment involves no significant hazards consideration.

"b. Any final order entered in any proceeding of the kind specified in subsection a. above shall be subject to judicial review in the manner prescribed in the Act of December 29, 1950, as amended (ch. 1189, 64 Stat. 1129), and to the provisions of section 10 of the Administrative Procedure Act, as amended.

5 U.S.C. 701-706, 28 U.S.C. 2341-2352.

42 U.S.C. sec. 2240.

"SEC. 190. LICENSEE INCIDENT REPORTS. — No report by any licensee of any incident arising out of or in connection with a licensed activity made pursuant to any requirement of the Commission shall be admitted as evidence in any suit or action for damages growing out of any matter mentioned in such report.

Atomic Safety and Licensing Board. 80 Stat. 386, 387, 5 U.S.C. 556, 557. 42 U.S.C. sec. 2241.

"SEC. 191. ATOMIC SAFETY AND LICENSING BOARD. —

"a. Notwithstanding the provisions of sections 7(a) and 8(a) of the Administrative Procedure Act, the Commission is authorized to establish one or more atomic safety and licensing boards, each comprised of three members, one of whom shall be qualified in the conduct of administrative proceedings and two of whom shall have such technical or other qualifications as the Commission deems appropriate to the issues to be decided, to conduct such hearings as the Commission may direct and make such intermediate or final decisions as the Commission may au-

thorize with respect to the granting, suspending, revoking or amending of any license or authorization under the provisions of this Act, any other provision of law, or any regulation of the Commission issued thereunder. The Commission may delegate to a board such other regulatory functions as the Commission deems appropriate. The Commission may appoint a panel of qualified persons from which board members may be selected.

"b. Board members may be appointed by the Commission from private life, or designated from the staff of the Commission or other Federal agency. Board members appointed from private life shall receive a per diem compensation for each day spent in meetings or conferences, and all members shall receive their necessary traveling or other expenses while engaged in the work of a board. The provisions of section 163 shall be applicable to board members appointed from private life.

"SEC. 192. TEMPORARY OPERATING LICENSE. —

Temporary licensing authority. 42 U.S.C. sec. 2242.

"a. In any proceeding upon an application for an operating license for a nuclear power reactor, in which a hearing is otherwise required pursuant to section 189 a., the applicant may petition the Commission for a temporary operating license authorizing operation of the facility pending final action by the Commission on the application. Such petition may be filed at any time after filing of: (1) the report of the Advisory Committee on Reactor Safeguards required by subsection 182 b.; (2) the safety

evaluation of the application by the Commission's regulatory staff; and (3) the regulatory staff's final detailed statement on the environmental impact of the facility prepared pursuant to section 102(2) (C) of the National Environmental Policy Act of 1969 (83 Stat. 853) or, in the case of an application for operating license filed on or before September 9, 1971, if the regulatory staff's final detailed statement required under section 102(2) (C) is not completed, the Commission must satisfy the applicable requirements of the National Environmental Policy Act prior to issuing any temporary operating license under this section 192. The petition shall be accompanied by an affidavit or affidavits setting forth the facts upon which the petitioner relies to justify issuance of the temporary operating license. Any party to the proceeding may file affidavits in support of, or opposition to, the petition within fourteen days after the filing of such petition, or within such additional time not to exceed ten days as may be fixed by the Commission. The Commission shall hold a hearing after ten days' notice and publication once in the Federal Register on any such petition and supporting material filed under this section and the decision of the Commission with respect to the issuance of a temporary operating license following such hearing, shall be on the basis of findings on the matters specified in subsection b. of this section. The hearing required by this section and the decision of the Commission on the petition shall be conducted with expedited procedures as the Commission

may by rule, regulation, or order deem appropriate for a full disclosure of material facts on all substantial issues raised in connection with the proposed temporary operating license.

"b. With respect to any petition filed pursuant to subsection a. of this section, the Commission shall issue a temporary operating license upon finding that:

"(1) the provisions of section 185 have been met with respect to the temporary operating license;

"(2) operation of the facility during the period of the temporary operating license in accordance with its terms and conditions will provide adequate protection of the environment during the period of the temporary operating license; and

"(3) operation of the facility in accordance with the terms and conditions of the temporary operating license is essential toward insuring that the power generating capacity of a utility system or power pool is at, or is restored to, the levels required to assure the adequacy and reliability of the power supply, taking into consideration factors which include, but need not be limited to, alternative available sources of supply, historical reserve requirements for the systems involved to function reliably, the possible endangerment to the public health and safety in the event of power shortages, and data from appropriate Federal and State governmental bodies which have official responsibility to assure an adequate and reliable power supply.

The temporary license shall contain such terms and conditions as the Commission may deem necessary, including the duration of the license and any provision for the extension thereof, and the requirement that the licensee not retire or dismantle any of its existing generating capacity on the ground of the availability of the capacity from the facility which is operating under the temporary license. Any decision or other document authorizing the issuance of any temporary license pursuant to this section shall recite with specificity the reasons justifying the issuance. The decision of the Commission with respect to the issuance of a temporary operating license shall be subject to judicial review pursuant to the Act of December 29, 1950, as amended (ch. 1189, 64 Stat. 1129).

"c. The hearing on the application for the final operating license otherwise required pursuant to section 189 a. shall be concluded as promptly as practicable. The Commission shall vacate the temporary operating license if it finds that the applicant is not prosecuting the application for the final operating license with due diligence. Issuance of a temporary operating license pursuant to subsection b. of this section shall be without prejudice to the position of any party to the proceeding in which a hearing is otherwise required pursuant to section 189 a.: and failure to assert any ground for denial or limitation of a temporary operating license shall not bar the assertion of such ground in connection with the issuance of a subsequent final operating license.

"d. The authority under this section shall expire on October 30, 1973.

"CHAPTER 17. JOINT COMMITTEE ON ATOMIC ENERGY

Membership. 42 U.S.C. sec. 2251.

"SEC. 201. MEMBERSHIP. — There is hereby established a Joint Committee on Atomic Energy to be composed of nine Members of the Senate to be appointed by the President of the Senate, and nine Members of the House of Representatives to be appointed by the Speaker of the House of Representatives. In each instance not more than five Members shall be members of the same political party.

Authority and duty. 42 U.S.C. sec. 2252.

"SEC. 202. AUTHORITY AND DUTY. —

Joint Committee on Atomic Energy hearings.

"a. The Joint Committee shall make continuing studies of the activities of the Atomic Energy Commission and of problems relating to the development, use, and control of atomic energy. During the first ninety days of each session of the Congress, the Joint Committee may conduct hearings in either open or executive session for the purpose of receiving information concerning the development, growth, and state of the atomic energy industry. The Commission shall keep the Joint Committee fully and currently informed with respect to all of the Commission's activities. The Department of Defense shall keep the Joint Committee fully and currently informed with respect to all matters within the Department of Defense relating to the development, utilization, or application of atomic energy. Any Government agency shall

furnish any information requested by the Joint Committee with respect to the activities or responsibilities of that agency in the field of atomic energy. All bills, resolutions, and other matters in the Senate or the House of Representatives relating primarily to the Commission or to the development, use, or control of atomic energy shall be referred to the Joint Committee. The members of the Joint Committee who are Members of the Senate shall from time to time report to the Senate, and the members of the Joint Committee who are Members of the House of Representatives shall from time to time report to the House, by bill or otherwise, their recommendations with respect to matters within the jurisdiction of their respective Houses which are referred to the Joint Committee or otherwise within the jurisdiction of the Joint Committee.

"b. The members of the Joint Committee who are Members of the Senate and the members of the Joint Committee who are Members of the House of Representatives shall, on or before June 30 of each year, report to their respective Houses on the development, use, and control of nuclear energy for the common defenses and security and for peaceful purposes. Each report shall provide facts and information available to the Joint Committee concerning nuclear energy which will assist the appropriate committees of the Congress and individual members in the exercise of informed judgment on matters of weaponry; foreign policy; defense; international trade; and in respect to the expenditure and

appropriation of Government revenues. Each report shall be presented formally under circumstances which provide for clarification and discussion by the Senate and the House of Representatives. In recognition of the need for public understanding, presentations of the reports shall be made to the maximum extent possible in open session and by means of unclassified written materials.

"SEC. 203. CHAIRMAN. — Vacancies in the membership of the Joint Committee shall not affect the power of the remaining members to execute the functions of the Joint Committee, and shall be filled in the same manner as in the case of the original selection. The Joint Committee shall select a Chairman and a Vice Chairman from among its members at the beginning of each Congress. The Vice Chairman shall act in the place and stead of the Chairman in the absence of the Chairman. The Chairmanship shall alternate between the Senate and the House of Representatives with each Congress, and the Chairman shall be selected by the Members from that House entitled to the Chairmanship. The Vice Chairman shall be chosen from the House other than that of the Chairman by the Members from that House.

Chairman.
42 U.S.C. sec. 2253.

"SEC. 204. POWERS. — In carrying out its duties under this Act, the Joint Committee, or any duly authorized subcommittee thereof, is authorized to hold such hearings or investigations, to sit and act at such places and times, to require, by subpena or otherwise, the attend-

Powers.
42 U.S.C. sec. 2254.

ance of such witnesses and the production of such books, papers, and documents, to administer such oaths, to take such testimony, to procure such printing and binding, and to make such expenditures as it deems advisable. The Joint Committee may make such rules respecting its organization and procedures as it deems necessary: *Provided, however,* That no measure or recommendation shall be reported from the Joint Committee unless a majority of the committee assent. Subpenas may be issued over the signature of the Chairman of the Joint Committee or by any member designated by him or by the Joint Committee, and may be served by such person or persons as may be designated by such Chairman or member. The Chairman of the Joint Committee or any member thereof may administer oaths to witnesses.

Committee seal. 2 U.S.C. 192-194.

The Joint Committee may use a committee seal. The provisions of sections 102 to 104, inclusive, of the Revised Statutes, as amended, shall apply in case of any failure of any witness to comply with a subpena or to testify when summoned under authority of this section. The expenses of the Joint Committee shall be paid from the contingent fund of the Senate from funds appropriated for the Joint Committee upon vouchers approved by the Chairman. The cost of stenographic service to report public hearings shall not be in excess of the amounts prescribed by law for reporting the hearings of standing committees of the Senate. The cost of stenographic service to report executive hearings shall be fixed at an equitable rate by the

Joint Committee. Members of the Joint Committee, and its employees and consultants, while traveling on official business for the Joint Committee, may receive either the per diem allowance authorized to be paid to Members of Congress or its employees, or their actual and necessary expenses provided an itemized statement of such expenses is attached to the voucher.

Staff and assistance. 42 U.S.C. sec. 2255.

"SEC. 205. STAFF AND ASSISTANCE. — The Joint Committee is empowered to appoint and fix the compensation of such experts, consultants, technicians, and staff employees as it deems necessary and advisable. The Joint Committee is authorized to utilize the services, information, facilities, and personnel of the departments and establishments of the Government. The Joint Committee is authorized to permit such of its members, employees, and consultants as it deems necessary in the interest of common defense and security to carry firearms while in the discharge of their official duties for the committee.

Classification of information. 42 U.S.C. sec. 2256.

"SEC. 206. CLASSIFICATION OF INFORMATION. — The Joint Committee may classify information originating within the committee in accordance with standards used generally by the executive branch for classifying Restricted Data or defense information.

Records. 42 U.S.C. sec. 2257.

"SEC. 207. RECORDS. — The Joint Committee shall keep a complete record of all committee actions, including a record of the votes on any

question on which a record vote is demanded. All committee records, data, charts and files shall be the property of the Joint Committee and shall be kept in the offices of the Joint Committee or other places as the Joint Committee may direct under such security safeguards as the Joint Committee shall determine in the interest of the common defense and security.

"CHAPTER 19. MISCELLANEOUS

Report to Congress. 42 U.S.C. sec. 2016.

"SEC. 251. REPORT TO CONGRESS. — The Commission shall submit to the Congress, in January of each year, a report concerning the activities of the Commission. The Commission shall include in such report, and shall at such other times as it deems desirable submit to the Congress, such recommendations for additional legislation as the Commission deems necessary or desirable.

Energy Reorganization Act of 1974

AN ACT

To reorganize and consolidate certain functions of the Federal Government in a new Energy Research and Development Administration and in a new Nuclear Regulatory Commission in order to promote more efficient management of such functions.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

Energy Reorganization Act of 1974.

SECTION 1. This Act may be cited as the "Energy Reorganization Act of 1974". 42 U.S.C. 5801 note.

DECLARATION OF PURPOSE

SEC. 2. (a) The Congress hereby declares that the general welfare and the common defense and security require effective action to develop, and increase the efficiency and reliability of use of, all energy sources to meet the needs of present and future generations, to increase the productivity of the national economy and strengthen its position in regard to international trade, to make the Nation self-sufficient in energy, to advance the goals of restoring, protecting, and enhancing environmental quality, and to assure public health and safety. 42 U.S.C. 5801.

Energy Research and Development Administration, establishment.

(b) The Congress finds that, to best achieve these objectives, improve Government operations, and assure the coordinated and effective development of all energy sources, it is necessary to establish an Energy Research and Development Administration to bring together and direct Federal activities relating to research and development on the various sources of energy, to increase the efficiency and reliability in the use of energy, and to carry out the performance of other functions, including but not limited to the Atomic Energy Commission's military and production activities and its general basic research activities. In establishing an Energy Research and Development Administration to achieve these objectives, the Congress intends that all possible sources of energy be developed consistent with warranted priorities.

88 Stat. 1233.
88 Stat. 1234.

Separation of AEC licensing and regulatory functions.

(c) The Congress finds that it is in the public interest that the licensing and related regulatory functions of the Atomic Energy Commission be separated from the performance of the other functions of the Commission, and that this separation be effected in an orderly manner, pursuant to this Act, assuring adequacy of technical and other resources necessary for the performance of each.

Small business participation.

(d) The Congress declares that it is in the public interest and the policy of Congress that small business concerns be given a reasonable opportunity to participate, insofar as is possible, fairly and equitably in grants, contracts, purchases, and other Federal activities relating

to research, development, and demonstration of sources of energy efficiency, and utilization and conservation of energy. In carrying out this policy, to the extent practicable, the Administrator shall consult with the Administrator of the Small Business Administration.

Priorities.

(e) Determination of priorities which are warranted should be based on such considerations as power-related values of an energy source, preservation of material resources, reduction of pollutants, export market potential (including reduction of imports), among others. On such a basis, energy sources warranting priority might include, but not be limited to, the various methods of utilizing solar energy.

TITLE I — ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

ESTABLISHMENT

42 U.S.C. 5811.

SEC. 101. There is hereby established an independent executive agency to be known as the Energy Research and Development Administration (hereinafter in this Act referred to as the "Administration").

OFFICERS

Administrator.
42 U.S.C. 5812.

SEC. 102. (a) There shall be at the head of the Administration an Administrator of Energy Research and Development (hereinafter in this Act referred to as the "Administrator"), who shall be appointed from civilian life by the President by and with the advice and consent

of the Senate. A person may not be appointed as Administrator within two years after release from active duty as a commissioned officer of a regular component of an Armed Force. The Administration shall be administered under the supervision and direction of the Administrator, who shall be responsible for the efficient and coordinated management of the Administration.

Deputy Administrator.

(b) There shall be in the Administration a Deputy Administrator, who shall be appointed by the President, by and with the advice and consent of the Senate.

88 Stat. 1234. 88 Stat. 1235.

(c) The President shall appoint the Administrator and Deputy Administrator from among individuals who, by reason of their general background and experience are specially qualified to manage a full range of energy research and development programs.

Assistant Administrators.

(d) There shall be in the Administration six Assistant Administrators, one of whom shall be responsible for fossil energy, another for nuclear energy, another for environment and safety, another for conservation, another for solar, geothermal, and advanced energy systems, and another for national security. The Assistant Administrators shall be appointed by the President, by and with the advice and consent of the Senate. The President shall appoint each Assistant Administrator from among individuals who, by reason of general background and experience, are specially qualified to manage the energy technology area assigned to such Assistant Administrator.

General Counsel.

(e) There shall be in the Administration a General Counsel who shall be appointed by the Administrator and who shall serve at the pleasure of and be removable by the Administrator.

Additional officers.

(f) There shall be in the Administration not more than eight additional officers appointed by the Administrator. The positions of such officers shall be considered career positions and be subject to subsection 161 d. of the Atomic Energy Act.

Director of Military Application.

(g) The Division of Military Application transferred to and established in the Administration by section 104 (d) of this Act shall be under the direction of a Director of Military Application, who shall be appointed by the Administrator and who shall serve at the pleasure of and be removable by the Administrator and shall be an active commissioned officer of the Armed Forces serving in general or flag officer rank or grade. The functions, qualifications, and compensation of the Director of Military Application shall be the same as those provided under the Atomic Energy Act of 1954, as amended, for the Assistant General Manager for Military Application.

42 U.S.C. 2011 note.

International cooperation.

(h) Officers appointed pursuant to this section shall perform such functions as the Administrator shall specify from time to time. The Administrator shall delegate to one such officer the special responsibility for international cooperation in all energy and related environmental research and development.

Order of succession.

(i) The Deputy Administrator (or in the absence or disability of the Deputy Administra-

tor, or in the event of a vacancy in the office of the Deputy Administrator, an Assistant Administrator, the General Counsel or such other official, determined according to such order as the Administrator shall prescribe) shall act for and perform the functions of the Administrator during any absence or disability of the Administrator or in the event of a vacancy in the office of the Administrator.

RESPONSIBILITIES OF THE ADMINISTRATOR

42 U.S.C. 5813.

SEC. 103. The responsibilities of the Administrator shall include, but not be limited to —

88 Stat. 1235.
88 Stat. 1236.

(1) exercising central responsibility for policy planning, coordination, support, and management of research and development programs respecting all energy sources, including assessing the requirements for research and development in regard to various energy sources in relation to near-term and long-range needs, policy planning in regard to meeting those requirements, undertaking programs for the optimal development of the various forms of energy sources, managing such programs, and disseminating information resulting therefrom:

(2) encouraging and conducting research and development, including demonstration of commercial feasibility and practical applications of the extraction, conversion, storage, transmission, and utilization phases related to the development and use of energy from fossil, nuclear, solar, geothermal, and other energy sources;

(3) engaging in and supporting environmental, biomedical, physical, and safety research related to the development of energy sources and utilization technologies;

(4) taking into account the existence, progress, and results of other public and private research and development activities, including those activities of the Federal Energy Administration relating to the development of energy resources using currently available technology in promoting increased utilization of energy resources, relevant to the Administration's mission in formulating its own research and development programs;

(5) participating in and supporting cooperative research and development projects which may involve contributions by public or private persons or agencies, of financial or other resources to the performance of the work;

(6) developing, collecting, distributing, and making available for distribution, scientific and technical information concerning the manufacture or development of energy and its efficient extraction, conversion, transmission, and utilization;

(7) creating and encouraging the development of general information to the public on all energy conservation technologies and energy sources as they become available for general use, and the Administrator, in conjunction with the Administrator of the Federal Energy Administration shall, to the extent practicable, disseminate such information through the use of mass communications;

(8) encouraging and conducting research and development in energy conservation, which shall be directed toward the goals of reducing total energy consumption to the maximum extent practicable, and toward maximum possible improvement in the efficiency of energy use. Development of new and improved conservation measures shall be conducted with the goal of the most expeditious possible application of these measures;

(9) encouraging and participating in international cooperation in energy and related environmental research and development;

88 Stat. 1236.
88 Stat. 1237.

(10) helping to assure an adequate supply of manpower for the accomplishment of energy research and development programs, by sponsoring and assisting in education and training activities in institutions of higher education, vocational schools, and other institutions, and by assuring the collection, analysis, and dissemination of necessary manpower supply and demand data;

(11) encouraging and conducting research and development in clean and renewable energy sources.

ABOLITION AND TRANSFERS

Atomic Energy Commission.
42 U.S.C. 5814.

SEC. 104. (a) The Atomic Energy Commission is hereby abolished. Sections 21 and 22 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2031 and 2032) are repealed.

(b) All other functions of the Commission, the Chairman and members of the Commission,

and the officers and components of the Commission are hereby transferred or allowed to lapse pursuant to the provisions of this Act.

(c) There are hereby transferred to and vested in the Administrator all functions of the Atomic Energy Commission, the Chairman and members of the Commission, and the officers and components of the Commission, except as otherwise provided in this Act.

(d) The General Advisory Committee established pursuant to section 26 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2036), the Patent Compensation Board established pursuant to section 157 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2187) and the Divisions of Military Application and Naval Research established pursuant to section 25 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2035), are transferred to the Energy Research and Development Administration and the functions of the Commission with respect thereto, and with respect to relations with the Military Liaison Committee established by section 27 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2037), are transferred to the Administrator.

Interior Department functions.

(e) There are hereby transferred to and vested in the Administrator such functions of the Secretary of the Interior, the Department of the Interior, and officers and components of such department —

(1) as relate to or are utilized by the Office of Cost Research established pursuant to the

Act of June 1, 1960 (74 Stat. 336; 30 U.S.C. 661-668);

(2) as relate to or are utilized in connection with fossil fuel energy research and development programs and related activities conducted by the Bureau of Mines "energy centers" and synthane plant to provide greater efficiency in the extraction, processing and utilization of energy resources for the purpose of conserving those resources, developing alternative energy resources such as oil and gas secondary and tertiary recovery, oil, shale and synthetic fuels, in proving methods of managing energy-related waste and pollutants, and providing technical guidance needed to establish and administer national energy policies; and

(3) as relate to or are utilized for underground electric power transmission research.

88 Stat. 1238. Helium applications study.

The Administrator shall conduct a study of the potential energy applications of helium and, within six months from the date of the enactment of this Act, report to the President and Congress his recommendations concerning the management of the Federal helium programs, as they relate to energy.

88 Stat. 1238. Report to President and Congress.

National Science Foundation functions.

(f) There are hereby transferred to and vested in the Administrator such functions of the National Science Foundation as relate to or are utilized in connection with —

(1) solar heating and cooling development; and

(2) geothermal power development.

Environmental Protection Agency functions.

(g) There are hereby transferred to and vested in the Administrator such functions of the Environmental Protection Agency and the officers and components thereof as relate to or are utilized in connection with research, development, and demonstration, but not assessment of monitoring for regulatory purposes, of alternative automotive power systems.

(h) To the extent necessary or appropriate to perform functions and carry out programs transferred by this Act, the Administrator and Commissions may exercise, in relation to the functions so transferred, any authority or part thereof available by law, including appropriation Acts, to the official or agency from which such functions were transferred.

Use of other agencies' capabilities.

(i) In the exercise of his responsibilities under section 103, the Administrator shall utilize, with their consent, to the fullest extent he determines advisable the technical and management capabilities of other executive agencies having facilities, personnel, or other resources which can assist or advantageously be expanded to assist in carrying out such responsibilities. The Administrator shall consult with the head of each agency with respect to such facilities, personnel, or other resources, and may assign, with their consent, specific programs or projects in energy research and development as appropriate. In making such assignments under this subsection, the head of each such agency shall insure that —

(1) such assignments shall be in addition to and not detract from the basic mission responsibilities of the agency, and

(2) such assignments shall be carried out under such guidance as the Administrator deems appropriate.

ADMINISTRATIVE PROVISIONS

Regulations. 42 U.S.C. 5815.

SEC. 105. (a) The Administrator is authorized to prescribe such policies, standards, criteria, procedures, rules, and regulations as he may deem to be necessary or appropriate to perform functions now or hereafter vested in him.

Policy planning and evaluation.

(b) The Administrator shall engage in such policy planning, and perform such program evaluation analyses and other studies, as may be necessary to promote the efficient and coordinated administration of the Administration and properly assess progress toward the achievement of its missions.

Delegation of functions.

(c) Except as otherwise expressly provided by law, the Administrator may delegate any of his functions to such officers and employees of the Administration as he may designate, and may authorize such successive redelegations of such functions as he may deem to be necessary or appropriate.

Organization.

(d) Except as provided in section 102 and in section 104(d), the Administrator may organize the Administration as he may deem to be necessary or appropriate.

Field offices.

(e) The Administrator is authorized to establish, maintain, alter, or discontinue such State, regional, district, local, or other field offices as he may deem to be necessary or appropriate to perform functions now or hereafter vested in him.

88 Stat. 1239. Seal.

(f) The Administrator shall cause a seal of office to be made for the Administration of such device as he shall approve, and judicial notice shall be taken of such seal.

Working capital fund.

(g) The Administrator is authorized to establish a working capital fund, to be available without fiscal year limitation, for expenses necessary for the maintenance and operation of such common administrative services he shall find to be desirable in the interests of economy and efficiency. There shall be transferred to the fund the stocks of supplies, equipment, assets other than real property, liabilities, and unpaid obligations relating to the services which he determines will be performed through the fund. Appropriations to the fund, in such amounts as may be necessary to provide additional working capital are authorized. The working capital fund shall recover from the appropriations and funds for which services are performed, either in advance or by way of reimbursement, amounts which will approximate the costs incurred including the accrual of annual leave and the depreciation of equipment. The fund shall also be credited with receipts from the sale or exchange of its property, and receipts in payment for loss or damage to property owned by the fund.

Information from other agencies.

(h) Each department, agency, and instrumentality of the executive branch of the Government is authorized to furnish to the Administrator, upon his request, any information or other data which the Administrator deems necessary to carry out his duties under this title.

PERSONNEL AND SERVICES

Appointment and pay.
42 U.S.C. 5816.

SEC. 106. (a) The Administrator is authorized to select, appoint, employ, and fix the compensation of such officers and employees, including attorneys, pursuant to section 161 d. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2201(d)) as are necessary to perform the functions now or hereafter vested in him and to prescribe their functions.

Experts and consultants.

(b) The Administrator is authorized to obtain services as provided by section 3109 of title 5 of the United States Code.

Military personnel.

(c) The Administrator is authorized to provide for participation of military personnel in the performance of his functions. Members of the Army, the Navy, the Air Force, or the Marine Corps may be detailed for service in the Administration by the appropriate military Secretary, pursuant to cooperative agreements with the Secretary, for service in the Administration in positions other than a position the occupant of which must be approved by and with the advice and consent of the Senate.

(d) Appointment, detail, or assignment to, acceptance of, and service in, any appointive or other position in the Administration under this

section shall in no way alter the status, office, rank, or grade which such officers or enlisted men may occupy or hold, or any emolument, prerequisite, right, privilege, or benefit incident to or arising out of any such status, office, rank, or grade. A member so appointed, detailed, or assigned shall not be subject to direction or control by his Armed Force, or any officer thereof, directly or indirectly, with respect to the responsibilities exercised in the position to which appointed, detailed, or assigned.

Transportation and per diem.

(e) The Administrator is authorized to pay transportation expenses, and per diem in lieu of subsistence expenses, in accordance with chapter 57 of title 5 of the United States Code for travel between places of recruitment and duty, and while at places of duty, of persons appointed for emergency, temporary, or seasonal services in the field service of the Administration.

88 Stat. 1240. Personnel of other agencies.

(f) The Administrator is authorized to utilize, on a reimbursable basis, the services of any personnel made available by any department, agency, or instrumentality, including any independent agency of the Government.

Advisory boards.
5 U.S.C. app. I.

(g) The Administrator is authorized to establish advisory boards, in accordance with the provisions of the Federal Advisory Committee Act (Public Law 92-463), to advise with and make recommendations to the Administrator on legislation, policies, administration, research, and other matters.

Noncitizens.

(h) The Administrator is authorized to employ persons who are not citizens of the United

States in expert, scientific, technical, or professional capacities whenever he deems it in the public interest.

POWERS

Research and development.

42 U.S.C. 5817

SEC. 107. (a) The Administrator is authorized to exercise his powers in such manner as to insure the continued conduct of research and development and related activities in areas or fields deemed by the Administrator to be pertinent to the acquisition of an expanded fund of scientific, technical, and practical knowledge in energy matters. To this end, the Administrator is authorized to make arrangements (including contracts, agreements, and loans) for the conduct of research and development activities with private or public institutions or persons, including participation in joint or cooperative projects of a research, developmental, or experimental nature; to make payments (in lump sum or installments, and in advance or by way of reimbursement, with necessary adjustments on account of overpayments or underpayments); and generally to take such steps as he may deem necessary or appropriate to perform functions now or hereafter vested in him. Such functions of the Administrator under this Act as are applicable to the nuclear activities transferred pursuant to this title shall be subject to the provisions of the Atomic Energy Act of 1954, as amended, and to other authority applicable to such nuclear activities. The non-nuclear responsibilities and functions of the Administrator referred to in sections 103 and 104 of this

Contracts, etc.

42 U.S.C. 2011 note.

Act shall be carried out pursuant to the provisions of this Act, applicable authority existing immediately before the effective date of this Act, or in accordance with the provisions of chapter 4 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2051-2053).

Facilities and real property.
40 U.S.C. 601 note.
5 U.S.C. app. II.

(b) Except for public buildings as defined in the Public Buildings Act of 1959, as amended, and with respect to leased space subject to the provisions of Reorganization Plan Numbered 18 of 1950, the Administrator is authorized to acquire (by purchase, lease, condemnation, or otherwise), construct, improve, repair, operate, and maintain facilities and real property as the Administrator deems to be necessary in and outside of the District of Columbia. Such authority shall apply only to facilities required for the maintenance and operation of laboratories, research and testing sites and facilities, quarters, and related accommodations for employees and dependents of employees of the Administration, and such other special-purpose real property as the Administrator deems to be necessary in and outside the District of Columbia. Title to any property or interest therein, real, personal, or mixed, acquired pursuant to this section, shall be in the United States.

Services for employees at remote locations.

(c)(1) The Administrator is authorized to provide, construct, or maintain, as necessary and when not otherwise available, the following for employees and their dependents stationed at remote locations:

(A) Emergency medical services and supplies.

(B) Food and other subsistence supplies.

88 Stat. 1241.

(C) Messing facilities.

(D) Audiovisual equipment, accessories, and supplies for recreation and training.

(E) Reimbursement for food, clothing, medicine, and other supplies furnished by such employees in emergencies for the temporary relief of distressed persons.

(F) Living and working quarters and facilities.

(G) Transportation for school-age dependents of employees to the nearest appropriate educational facilities.

(2) The furnishing of medical treatment under sub-paragraph (A) of paragraph (1) and the furnishing of services and supplies under paragraphs (B) and (C) of paragraph (1) shall be at prices reflecting reasonable value as determined by the Administrator.

(3) Proceeds from reimbursements under this section shall be deposited in the Treasury and may be withdrawn by the Administrator to pay directly the cost of such work or services, to repay or make advances to appropriations or funds which do or will bear all or a part of such cost, or to refund excess sums when necessary; except that such payments may be credited to a service or working capital fund otherwise established by law, and used under the law governing such funds, if the fund is available for use by the Administrator for performing the work or services for which payment is received.

Acquisition of copyrights, patents, etc.

(d) The Administrator is authorized to acquire any of the following described rights if the property acquired thereby is for use in, or is

useful to, the performance of functions vested in him:

(1) Copyrights, patents, and applications for patents, designs, processes, specifications, and data.

(2) Licenses under copyrights, patents, and applications for patents.

(3) Releases, before suit is brought, for past infringement of patents or copyrights.

Dissemination of information.

(e) Subject to the provisions of chapter 12 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2161-2166), and other applicable law, the Administrator shall disseminate scientific, technical, and practical information acquired pursuant to this title through information programs and other appropriate means, and shall encourage the dissemination of scientific, technical, and practical information relating to energy so as to enlarge the fund of such information and to provide that free interchange of ideas and criticism which is essential to scientific and industrial progress and public understanding.

Gifts and bequests.

(f) The Administrator is authorized to accept, hold, administer, and utilize gifts, and bequests of property, both real and personal, for the purpose of aiding or facilitating the work of the Administration. Gifts and bequests of money and proceeds from sales of other property received as gifts or bequests shall be deposited in the Treasury and shall be disbursed upon the order of the Administrator. For the purposes of Federal income, estate, and gift taxes, property accepted under this section shall be considered as a gift or bequest to the United States.

INTERIM COORDINATION

Energy Resources Council, establishment. 42 U.S.C. 5818.

SEC. 108. (a) There is established in the Executive Office of the President an Energy Resources Council. The Council shall be composed of the Secretary of the Interior, the Administrator of the Federal Energy Administration, the Administrator of the Energy Research and Development Administration, the Secretary of State, the Director, Office of Management and Budget, and such other officials of the Federal Government as the President may designate. The President shall designate one of the members of the Council to serve as Chairman.

88 Stat. 1242.

(b) It shall be the duty and function of the Council to —

(1) insure communication and coordination among the agencies of the Federal Government which have responsibilities for the development and implementation of energy policy or for the management of energy resources:

(2) make recommendations to the President and to the Congress for measures to improve the implementation of Federal energy policies or the management of energy resources with particular emphasis upon policies and activities involving two or more Departments or independent agencies; and

(3) advise the President in the preparation of the reorganization recommendations required by section 110 of this Act.

Testimony before Congress.

(c) The Chairman of the Council may not refuse to testify before the Congress or any duly

authorized committee thereof regarding the duties of the Council or other matters concerning interagency coordination of energy policy and activities.

Effective date. Publication in Federal Register.

(d) This section shall be effective no later than sixty days after the enactment of this Act or such earlier date as the President shall prescribe and publish in the Federal Register, and shall terminate upon enactment of a permanent department responsible for energy and natural resources or two years after such effective date, whichever shall occur first.

FUTURE REORGANIZATION

Report to Congress. 42 U.S.C. 5819.

SEC. 109. (a) The President shall transmit to the Congress as promptly as possible, but not later than June 30, 1975, such additional recommendations as he deems advisable for organization of energy and related functions in the Federal Government, including, but not limited to, whether or not there shall be established (1) a Department of Energy and Natural Resources, (2) an Energy Policy Council, and (3) a consolidation in whole or in part of regulatory functions concerning energy.

(b) This report shall replace and serve the purposes of the report required by section 15(a) (4) of the Federal Energy Administration Act. *Ante*, p. 109.

COORDINATION WITH ENVIRONMENTAL EFFORTS

42 U.S.C. 5820.

SEC. 110. The Administrator is authorized to establish programs to utilize research and development performed by other Federal agen-

cies to minimize the adverse environmental effects of energy projects. The Administrator of the Environmental Protection Agency, as well as other affected agencies and departments, shall cooperate fully with the Administrator in establishing and maintaining such programs, and in establishing appropriate inter-agency agreements to develop cooperative programs and to avoid unnecessary duplication.

TITLE II — NUCLEAR REGULATORY COMMISSION

ESTABLISHMENT AND TRANSFERS

Members and Chairman. 42 U.S.C. 5841.

SEC. 201. (a) There is established an independent regulatory commission to be known as the Nuclear Regulatory Commission which shall be composed of five members, each of whom shall be a citizen of the United States. The

88 Stat. 1243.

President shall designate one member of the Commission as Chairman thereof to serve as such during the pleasure of the President. The Chairman may from time to time designate any other member of the Commission as Acting Chairman to act in the place and stead of the Chairman during his absence. The Chairman (or the Acting Chairman in the absence of the Chairman) shall preside at all meetings of the Commission and a quorum for the transaction of business shall consist of at least three members present. Each member of the Commission, including the Chairman, shall have equal responsibility and authority in all decisions and actions of the Commission, shall have full access to all information relating to the performance of his duties or responsibilities, and shall have one vote. Action of the Commission shall be determined by a majority vote of the members present. The Chairman (or Acting Chairman in the absence of the Chairman) shall be the official spokesman of the Commission in its relations with the Congress, Government agencies, persons, or the public, and, on behalf of the Commission, shall see to the faithful execution of the policies and decisions of the Commission, and shall report thereon to the Commission from time to time or as the Commission may direct. The Commission shall have an official seal which shall be judicially noticed.

Seal.

(b)(1) Members of the Commission shall be appointed by the President, by and with the advice and consent of the Senate.

(2) Appointments of members pursuant to this sub-section shall be made in such a manner that not more than three members of the Commission shall be members of the same political party.

(c) Each member shall serve for a term of five years, each such term to commence on July 1, except that of the five members first appointed to the Commission, one shall serve for one year, one for two years, one for three years, one for four years, and one for five years, to be designated by the President at the time of appointment.

(d) Such initial appointments shall be submitted to the Senate within sixty days of the

Submission of appointments to Senate.

signing of this Act. Any individual who is serving as a member of the Atomic Energy Commission at the time of the enactment of this Act, and who may be appointed by the President to the Commission, shall be appointed for a term designated by the President, but which term shall terminate not later than the end of his present term as a member of the Atomic Energy Commission, without regard to the requirements of subsection (b)(2) of this section. Any subsequent appointment of such individuals shall be subject to the provisions of this section.

(e) Any member of the Commission may be removed by the President for inefficiency, neglect of duty, or malfeasance in office. No member of the Commission shall engage in any business, vocation, or employment other than that of serving as a member of the Commission.

Transfer of AEC functions and personnel.

(f) There are hereby transferred to the Commission all the licensing and related regulatory functions of the Atomic Energy Commission, the Chairman and members of the Commission, the General Counsel, and other officers and components of the Commission — which functions, officers, components, and personnel are excepted from the transfer to the Administrator by section 104(c) of this Act.

Additional transfers.

(g) In addition to other functions and personnel transferred to the Commission, there are also transferred to the Commission —

(1) the functions of the Atomic Safety and Licensing Board Panel and the Atomic Safety and Licensing Appeal Board;

(2) such personnel as the Director of the Office of Management and Budget determines are necessary for exercising responsibilities under section 205, relating to, research, for the purpose of confirmatory assessment relating to licensing and other regulation under the provisions of the Atomic Energy Act of 1954, as amended, and of this Act. 88 Stat. 1244.

42 U.S.C. 2011 note.

LICENSING AND RELATED REGULATORY FUNCTIONS RESPECTING SELECTED ADMINISTRATION FACILITIES

SEC. 202. Notwithstanding the exclusions provided for in section 110 a. or any other provisions of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2140(a)), the Nuclear Regulatory Commission shall, except as otherwise specifically provided by section 110 b. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2140(b)), or other law, have licensing and related regulatory authority pursuant to chapters 6, 7, 8, and 10 of the Atomic Energy Act of 1954, as amended, as to the following facilities of the Administration: 42 U.S.C. 5842. 42 U.S.C. 2071-2112, 2131-2140.

(1) Demonstration Liquid Metal Fast Breeder reactors when operated as part of the power generation facilities of an electric utility system, or when operated in any other manner for the purpose of demonstrating the suitability for commercial application of such a reactor.

(2) Other demonstration nuclear reactors — except those in existence on the effective date of this Act — when operated as part of the power generation facilities of an electric utility system, or when operated in any other manner for

the purpose of demonstrating the suitability for commercial application of such a reactor.

(3) Facilities used primarily for the receipt and storage of high-level radioactive wastes resulting from activities licensed under such Act.

(4) Retrievable Surface Storage Facilities and other facilities authorized for the express purpose of subsequent long-term storage of high-level radioactive waste generated by the Administration, which are not used for, or are part of, research and development activities.

OFFICE OF NUCLEAR REACTOR REGULATION

Establishment. 42 U.S.C. 5843. Director.

SEC. 203. (a) There is hereby established in the Commission an Office of Nuclear Reactor Regulation under the direction of a Director of Nuclear Reactor Regulation, who shall be appointed by the Commission, who may report directly to the Commission, as provided in section 209, and who shall serve at the pleasure of and be removable by the Commission.

Functions.

(b) Subject to the provisions of this Act, the Director of Nuclear Reactor Regulation shall perform such functions as the Commission shall delegate including:

(1) Principal licensing and regulation involving all facilities, and materials licensed under the Atomic Energy Act of 1954, as amended, associated with the construction and operation of nuclear reactors licensed under the Atomic Energy Act of 1954, as amended;

42 U.S.C. 2011 note.

(2) Review the safety and safeguards of all such facilities, materials, and activities, and

such review functions shall include, but not be limited to—

(A) monitoring, testing and recommending upgrading of systems designed to prevent substantial health or safety hazards; and

88 Stat. 1245.

(B) evaluating methods of transporting special nuclear and other nuclear materials and of transporting and storing high-level radioactive wastes to prevent radiation hazards to employees and the general public.

(3) Recommend research necessary for the discharge of the functions of the Commission.

(c) Nothing in this section shall be construed to limit in any way the functions of the Administration relating to the safe operation of all facilities resulting from all activities within the jurisdiction of the Administration pursuant to this Act.

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

SEC. 204. (a) There is hereby established in the Commission an Office of Nuclear Material Safety and Safeguards under the direction of a Director of Nuclear Material Safety and Safeguards, who shall be appointed by the Commission, who may report directly to the Commission as provided in section 209, and who shall serve at the pleasure of and be removable by the Commission.

Establishment. 42 U.S.C. 5844. Director.

(b) Subject to the provisions of this Act, the Director of Nuclear Material Safety and Safeguards shall perform such functions as the Commission shall delegate, including:

Functions.

42 U.S.C. 2011 note.

(1) Principal licensing and regulation involving all facilities and materials, licensed under the Atomic Energy Act of 1954, as amended, associated with the processing, transport, and handling of nuclear materials, including the provision and maintenance of safeguards against threats, thefts, and sabotage of such licensed facilities, and materials.

(2) Review safety and safeguards of all such facilities and materials licensed under the Atomic Energy Act of 1954, as amended, and such review shall include, but not be limited to—

(A) monitoring, testing, and recommending upgrading of internal accounting systems for special nuclear and other nuclear materials licensed under the Atomic Energy Act of 1954, as amended;

(B) developing, in consultation and coordination with the Administration, contingency plans for dealing with threats, thefts, and sabotage relating to special nuclear materials, high-level radioactive wastes and nuclear facilities resulting from all activities licensed under the Atomic Energy Act of 1954, as amended;

(C) assessing the need for, and the feasibility of, establishing a security agency within the office for the performance of the safeguards functions, and a report with recommendations on this matter shall be prepared within one year of the effective date of this Act and promptly transmitted to the Congress by the Commission.

Report to Congress.

(3) Recommending research to enable the Commission to more effectively perform its functions.

(c) Nothing in this section shall be construed to limit in any way the functions of the Administration relating to the safeguarding of special nuclear materials, high-level radioactive wastes and nuclear facilities resulting from all activities within the jurisdiction of the Administration pursuant to this Act.

88 Stat. 1246.

OFFICE OF NUCLEAR REGULATORY RESEARCH

SEC. 205. (a) There is hereby established in the Commission and Office of Nuclear Regulatory Research under the direction of a Director of Nuclear Regulatory Research, who shall be appointed by the Commission, who may report directly to the Commission as provided in section 209, and who shall serve at the pleasure of and be removable by the Commission.

Establishment. 42 U.S.C. 5845.

Director.

(b) Subject to the provisions of this Act, the Director of Nuclear Regulatory Research shall perform such functions as the Commission shall delegate including:

Functions.

(1) Developing recommendations for research deemed necessary for performance by the Commission of its licensing and related regulatory functions.

(2) Engaging in or contracting for research which the Commission deems necessary for the performance of its licensing and related regulatory functions.

(c) The Administrator of the Administration and the head of every other Federal agency shall —

Cooperation of Federal agencies.

(1) cooperate with respect to the establishment of priorities for the furnishing of such research services as requested by the Commission for the conduct of its functions;

(2) furnish to the Commission, on a reimbursable basis, through their own facilities or by contract or other arrangement, such research services as the Commission deems necessary and requests for the performance of its functions; and

(3) consult and cooperate with the Commission on research and development matters of mutual interest and provide such information and physical access to its facilities as will assist the Commission in acquiring the expertise necessary to perform its licensing and related regulatory functions.

(d) Nothing in subsections (a) and (b) of this section or section 201 of this Act shall be construed to limit in any way the functions of the Administration relating to the safety of activities within the jurisdiction of the Administration.

Information and research services.

(e) Each Federal agency, subject to the provisions of existing law, shall cooperate with the Commission and provide such information and research services, on a reimbursable basis, as it may have or be reasonably able to acquire.

NONCOMPLIANCE

42 U.S.C. 5846.

SEC. 206. (a) Any individual director, or responsible officer of a firm constructing, owning, operating, or supplying the components of any

42 U.S.C. 2011 note.

facility or activity which is licensed or otherwise regulated pursuant to the Atomic Energy Act of 1954 as amended, or pursuant to this Act, who obtains information reasonably indicating that such facility or activity or basic components supplied to such facility or activity —

(1) fails to comply with the Atomic Energy Act of 1954, as amended, or any applicable rule, regulation, order, or license of the Commission relating to substantial safety hazards, or

(2) contains a defect which would create a substantial safety hazard, as defined by regulations which the Commission shall promulgate,

shall immediately notify the Commission of such failure to comply, or of such defect, unless such person has actual knowledge that the Commission has been adequately informed of such defect or failure to comply.

88 Stat. 1247.

Penalty.

(b) Any person who knowingly and consciously fails to provide the notice required by subsection (a) of this section shall be subject to a civil penalty in an amount equal to the amount provided by section 234 of the Atomic Energy Act of 1954, as amended.

42 U.S.C. 2282.

Posting of requirements.

42 U.S.C. 2011 note.

(c) The requirements of this section shall be prominently posted on the premises of any facility licensed or otherwise regulated pursuant to the Atomic Energy Act of 1954, as amended.

Enforcement.

(d) The Commission is authorized to conduct such reasonable inspections and other enforcement activities as needed to insure compliance with the provisions of this section.

NUCLEAR ENERGY CENTER SITE SURVEY

42 U.S.C. 5847.

SEC. 207. (a)(1) The Commission is authorized and directed to make or cause to be made under its direction, a national survey, which shall include consideration of each of the existing or future electric reliability regions, or other appropriate regional areas, to locate and identify possible nuclear energy center sites. This survey shall be conducted in cooperation with other interested Federal, State, and local agencies, and the views of interested persons, including electric utilities, citizens' groups, and others, shall be solicited and considered.

Federal-State-local cooperation. Solicitation of views.

Definition.

(2) For purposes of this section, the term "nuclear energy center site" means any site, including a site not restricted to land, large enough to support utility operations or other elements of the total nuclear fuel cycle, or both including, if appropriate, nuclear fuel reprocessing facilities, nuclear fuel fabrication plants, retrievable nuclear waste storage facilities, and uranium enrichment facilities.

(3) The survey shall include —

(a) a regional evaluation of natural resources, including land, air, and water resources, available for use in connection with nuclear energy center sites; estimates of future electric power requirements that can be served by each nuclear energy center site; an assessment of the economic impact of each nuclear energy site; and consideration of any other relevant factors, including but not limited to population distribution, proximity to electric load centers and to other elements of the fuel cycle, transmission

line rights-of-way, and the availability of other fuel resources;

(b) an evaluation of the environmental impact likely to result from construction and operation of such nuclear energy centers, including an evaluation whether such nuclear energy centers will result in greater or lesser environmental impact than separate siting of the reactors and/or fuel cycle facilities; and

(c) consideration of the use of federally owned property and other property designated for public use, but excluding national parks, national forests, national wilderness areas, and national historic monuments.

Report to Congress and Council on Environmental Quality; public availability.

(4) A report of the results of the survey shall be published and transmitted to the Congress and the Council on Environmental Quality not later than one year from the date of the enactment of this Act and shall be made available to the public, and shall be updated from time to time thereafter as the Commission, in its discretion, deems advisable. The report shall include the Commission's evaluation of the results of the survey and any conclusions and recommendations, including recommendations for legislation, which the Commission may have concerning the feasibility and practicality of locating nuclear power reactors and/or other elements of the nuclear fuel cycle or nuclear energy center sites. The Commission is authorized to adopt policies which will encourage the location of nuclear power reactors and related fuel cycle facilities on nuclear energy center sites insofar as practicable.

88 Stat. 1248.

ABNORMAL OCCURRENCE REPORTS

Reports to Congress. 42 U.S.C. 5848.

SEC. 208. The Commission shall submit to the Congress each quarter a report listing for that period any abnormal occurrences at or associated with any facility which is licensed or otherwise regulated pursuant to the Atomic Energy Act of 1954 as amended, or pursuant to this Act. For the purposes of this section an abnormal occurrence is an unscheduled incident or event which the Commission determines is significant from the standpoint of public health or safety. Nothing in the preceding sentence shall limit the authority of a court to review the determination of the Commission. Each such report shall contain —

42 U.S.C. 2011 note.

(1) the date and place of each occurrence;

(2) the nature and probable consequence of each occurrence;

(3) the cause or causes of each; and

(4) any action taken to prevent reoccurrence;

Public dissemination of information.

the Commission shall also provide as wide dissemination to the public of the information specified in clauses (1) and (2) of this section as reasonably possible within fifteen days of its receiving information of each abnormal occurrence and shall provide as wide dissemination to the public as reasonably possible of the information specified in clauses (3) and (4) as soon as such information becomes available to it.

OTHER OFFICERS

Executive Director. 42 U.S.C. 5849.

SEC. 209. (a) The Commission shall appoint an Executive Director for Operations, who shall

serve at the pleasure of and be removable by the Commission.

Functions.

(b) The Executive Director shall perform such functions as the Commission may direct, except that the Executive Director shall not limit the authority of the director of any component organization provided in this Act to communicate with or report directly to the Commission when such director of a component organization deems it necessary to carry out his responsibilities.

Other officers.

(c) There shall be in the Commission not more than five additional officers appointed by the Commission. The positions of such officers shall be considered career positions and be subject to subsection 161 d. of the Atomic Energy Act.

42 U.S.C. 2201.

TITLE III — MISCELLANEOUS AND TRANSITIONAL PROVISIONS

TRANSITIONAL PROVISIONS

Lapses of agencies and positions. 42 U.S.C. 5871.

SEC. 301. (a) Except as otherwise provided in this Act, whenever all of the functions or programs of an agency, or other body, or any component thereof, affected by this Act, have been transferred from that agency, or other body, or any component thereof by this Act, the agency, or other body, or component thereof shall lapse. If an agency, or other body, or any component thereof, lapses pursuant to the preceding sentence, each position and office therein which was expressly authorized by law, or the incumbent

of which was authorized to receive compensation at the rate prescribed for an office or position at level II, III, IV, or V of the Executive Schedule (5 U.S.C. 5313-5316), shall lapse.

88 Stat. 1249.

Savings clauses.

(b) All orders, determinations, rules, regulations, permits, contracts, certificates, licenses, and privileges —

(1) which have been issued, made, granted, or allowed to become effective by the President, any Federal department or agency or official thereof, or by a court of competent jurisdiction, in the performance of functions which are transferred under this Act, and

(2) which are in effect at the time this Act takes effect,

shall continue in effect according to their terms until modified, terminated, superseded, set aside, or revoked by the President, the Administrator, the Commission, or other authorized officials, a court of competent jurisdiction, or by operation of law.

(c) The provisions of this Act shall not affect any proceeding pending, at the time this section takes effect, before the Atomic Energy Commission or any department or agency (or component thereof) functions of which are transferred by this Act; but such proceedings, to the extent that they relate to functions so transferred, shall be continued. Orders shall be issued in such proceedings, appeals shall be taken therefrom, and payments shall be made pursuant to such orders, as if this Act had not been enacted; and orders issued in any such proceedings shall continue in effect until modified, terminated, superseded, or revoked by a duly authorized official, by a court of competent jurisdiction, or by operation of law. Nothing in this subsection shall be deemed to prohibit the discontinuance or modification of any such proceeding under the same terms and conditions and to the same extent that such proceeding could have been discontinued if this Act had not been enacted.

(d) Except as provided in subsection (f) —

(1) the provisions of this Act shall not affect suits commenced prior to the date this Act takes effect, and

(2) in all such suits proceedings shall be had, appeals taken, and judgments rendered, in the same manner and effect as if this Act had not been enacted.

(e) No suit, action, or other proceeding commenced by or against any officer in his official capacity as an officer of any department or agency, functions of which are transferred by this Act, shall abate by reason of the enactment of this Act. No cause of action by or against any department or agency, functions of which are transferred by this Act, or by or against any officer thereof in his official capacity shall abate by reason of the enactment of this Act. Causes of actions, suits, actions, or other proceedings may be asserted by or against the United States or such official as may be appropriate and, in any litigation pending when this section takes effect, the court may at any time, on its own motion or that of any party, enter any order which will give effect to the provisions of this section.

(f) If, before the date on which this Act takes effect, any department or agency, or officer thereof in his official capacity, is a party to a suit, and under this Act any function of such department, agency, or officer is transferred to the Administrator or Commission, or any other official, then such suit shall be continued as if this Act had not been enacted, with the Administrator or Commission, or other official, as the case may be, substituted.

(g) Final orders and actions of any official or component in the performance of functions transferred by this Act shall be subject to judicial review to the same extent and in the same manner as if such orders or actions had been made or taken by the officer, department, agency, or instrumentality in the performance of such functions immediately preceding the effective date of the Act. Any statutory requirements relating to notices, hearings, action upon the record, or administrative review that apply to any function transferred by this Act shall apply to the performance of those functions by the Administrator or Commission, or any officer or component.

88 Stat. 1250.

(h) With respect to any function transferred by this Act and performed after the effective date of this Act, reference in any other law to any department or agency, or any officer or office, the functions of which are so transferred, shall be deemed to refer to the Administration, the Administrator or Commission, or other office or official in which this Act vests such functions.

(i) Nothing contained in this Act shall be construed to limit, curtail, abolish, or terminate

any function of the President which he had immediately before the effective date of this Act; or to limit, curtail, abolish, or terminate his authority to perform such function; or to limit, curtail, abolish, or terminate his authority to delegate, redelegate, or terminate any delegation of functions.

(j) Any reference in this Act to any provision of law shall be deemed to include, as appropriate, references thereto as now or hereafter amended or supplemented.

(k) Except as may be otherwise expressly provided in this Act, all functions expressly conferred by this Act shall be in addition to and not in substitution for functions existing immediately before the effective date of this Act and transferred by this Act.

TRANSFER OF PERSONNEL AND OTHER MATTERS

SEC. 302. (a) Except as provided in the next sentence, the personnel employed in connection with, and the personnel positions, assets, liabilities, contracts, property, records, and unexpended balances of appropriations, authorizations, allocations, and other funds employed, held, used, arising from, available to or to be made available in connection with the functions and programs transferred by this Act, are, subject to section 202 of the Budget and Accounting Procedures Act of 1950 (31 U.S.C. 581c), correspondingly transferred for appropriate allocation. Personnel positions expressly created by law, personnel occupying those positions on

42 U.S.C. 5872.

the effective date of this Act, and personnel authorized to receive compensation at the rate prescribed for offices and positions at levels II, III, IV, or V of the Executive Schedule (5 U.S.C. 5313-5316) on the effective date of this Act shall be subject to the provisions of subsection (c) of this section and section 301 of this Act.

(b) Except as provided in subsection (c), transfer of nontemporary personnel pursuant to this Act shall not cause any such employee to be separated or reduced in grade or compensation for one year after such transfer.

(c) Any person who, on the effective date of this Act, held a position compensated in accordance with the Executive Schedule prescribed in chapter 53 of title 5 of the United States Code, and who, without a break in service, is appointed in the Administration to a position having duties comparable to those performed immediately preceding his appointment shall continue to be compensated in his new position at not less than the rate provided for his previous position.

INCIDENTAL DISPOSITIONS

42 U.S.C. 5873.

SEC. 303. The Director of the Office of Management and Budget is authorized to make such additional incidental dispositions of personnel, personnel positions, assets, liabilities, contracts, property, records, and unexpended balances of appropriations, authorizations, allocations, and other funds held, used, arising from, available to or to be made available in connection with functions transferred by this Act, as he may

88 Stat. 1251.

deem necessary or appropriate to accomplish the intent and purpose of this Act.

DEFINITIONS

SEC. 304. As used in this Act— 42 U.S.C. 5874.

(1) any reference to "function" or "functions" shall be deemed to include references to duty, obligation, power, authority, responsibility, right, privilege, and activity, or the plural thereof, as the case may be; and

(2) any reference to "perform" or "performance", when used in relation to functions, shall be deemed to include the exercise of power, authority, rights, and privileges.

AUTHORIZATION OF APPROPRIATIONS

SEC. 305. (a) Except as otherwise provided by law, appropriations made under this Act shall be subject to annual authorization. 42 U.S.C. 5875.

(b) Authorization of appropriations to the Commission shall reflect the need for effective licensing and other regulation of the nuclear power industry in relation to the growth of such industry.

COMPTROLLER GENERAL AUDIT

SEC. 306. (a) Section 166. "Comptroller General Audit" of the Atomic Energy Act of 1954, as amended, shall be deemed to be applicable, respectively, to the nuclear and nonnuclear activities under title I and to the activities under title II. 42 U.S.C. 5876. 42 U.S.C. 2206.

Ante, pp. 1234, 1242.

(b) The Comptroller General of the United States shall audit, review, and evaluate the implementation of the provisions of title II of this Act by the Nuclear Safety and Licensing Commission not later than sixty months after the effective date of this Act, the Comptroller General shall prepare and submit to the Congress a report on his audit, which shall contain, but not be limited to —

Report to Congress.

(1) an evaluation of the effectiveness of the licensing and related regulatory activities of the Commission and the operations of the Office of Nuclear Safety Research and the Bureau of Nuclear Materials Security;

(2) an evaluation of the effect of such Commission activities on the efficiency, effectiveness, and safety with which the activities licensed under the Atomic Energy Act of 1954, as amended, are carried out;

(3) recommendations concerning any legislation he deems necessary, and the reasons therefor, for improving the implementation of title II.

REPORTS

Reports to the President and Congress. 42 U.S.C. 5877. Administration activities and progress.

SEC. 307. (a) The Administrator shall, as soon as practicable after the end of each fiscal year, make a report to the President for submission to the Congress on the activities of the Administration during the preceding fiscal year. Such report shall include a statement of the short-range and long-range goals, priorities, and plans of the Administration together with an assessment of the progress made toward the

attainment of those objectives and toward the more effective and efficient management of the Administration and the coordination of its functions.

Feasibility of transferring military application functions. 88 Stat. 1252.

(b) During the first year of operation of the Administration, the Administrator, in collaboration with the Secretary of Defense, shall conduct a thorough review of the desirability and feasibility of transferring to the Department of Defense or other Federal agencies the functions of the Administrator respecting military application and restricted data, and within one year after the Administrator first takes office the Administrator shall make a report to the President, for submission to the Congress, setting forth his comprehensive analysis, the principal alternatives, and the specific recommendations of the Administrator and the Secretary of Defense.

Commission activities and findings.

(c) The Commission shall, as soon as practicable after the end of each fiscal year, make a report to the President for submission to the Congress on the activities of the Commission during the preceding fiscal year. Such report shall include a clear statement of the short-range and long-range goals, priorities, and plans of the Commission as they relate to the benefits, costs, and risks of commercial nuclear power. Such report shall also include a clear description of the Commission's activities and findings in the following areas —

(1) insuring the safe design of nuclear power plants and other licensed facilities;

(2) investigating abnormal occurrences and defects in nuclear powerplants and other licensed facilities;

(3) safeguarding special nuclear materials at all stages of the nuclear fuel cycle;

(4) investigating suspected, attempted, or actual thefts of special nuclear materials in the licensed sector and developing contingency plans for dealing with such incidents;

(5) insuring the safe, permanent disposal of high-level radioactive wastes through the licensing of nuclear activities and facilities;

(6) protecting the public against the hazards of low-level radioactive emissions from licensed nuclear activities and facilities.

INFORMATION TO COMMITTEES

42 U.S.C. 5878. SEC. 308. The Administrator shall keep the appropriate congressional committees fully and currently informed with respect to all of the Administration's activities.

TRANSFER OF FUNDS

42 U.S.C. 5879. SEC. 309. The Administrator, when authorized in an appropriation Act, may, in any fiscal year, transfer funds from one appropriation to another within the Administration; except, that no appropriation shall be either increased or decreased pursuant to this section by more than 5 per centum of the appropriation for such fiscal year.

CONFORMING AMENDMENTS TO CERTAIN OTHER LAWS

SEC. 310. Subchapter II (relating to Executive Schedule pay rates) of chapter 53 of title 5, United States Code, is amended as follows:

(1) Section 5313 is amended by striking out "(8) Chairman, Atomic Energy Commission." and inserting in lieu thereof "(8) Chairman, Nuclear Regulatory Commission.", and by adding at the end thereof the following:

"(22) Administrator of Energy Research and Development Administration.".

(2) Section 5314 is amended by striking out "(42) Members, Atomic Energy Commission." and inserting in lieu thereof "(42) Members, Nuclear Regulatory Commission.", and by adding at the end thereof the following:

"(60) Deputy Administrator, Energy Research and Development Administration.".

(3) Section 5315 is amended by striking out paragraph (50), and by adding at the end thereof the following: 88 Stat. 1253.

"(100) Assistant Administrators, Energy Research and Development Administration (6).

"(101) Director of Nuclear Reactor Regulation, Nuclear Regulatory Commission.

"(102) Director of Nuclear Material Safety and Safeguards, Nuclear Regulatory Commission.

"(103) Director of Nuclear Regulatory Research, Nuclear Regulatory Commission.

"(104) Executive Director for Operations, Nuclear Regulatory Commission."

(4) Section 5316 is amended by striking out paragraphs (29), (62), (69), and (102), by striking out "(81) General Counsel of the Atomic Energy Commission," and inserting in lieu thereof "(81) General Counsel of the Nuclear

Regulatory Commission.", and by adding at the end thereof the following:

"(134) General Counsel, Energy Research and Development Administration.

"(135) Additional officers, Energy Research and Development Administration (8).

"(136) Additional officers, Nuclear Regulatory Commission (5).".

SEPARABILITY

42 U.S.C. 5801 note.

SEC. 311. If any provision of this Act, or the application thereof to any person or circumstance, is held invalid, the remainder of this Act, and the application of such provision to other persons or circumstances, shall not be affected thereby.

EFFECTIVE DATE AND INTERIM APPOINTMENTS

42 U.S.C. 5801 note. Publication in Federal Register.

SEC. 312. (a) This Act shall take effect one hundred and twenty days after the date of its enactment, or on such earlier date that the President may prescribe and publish in the Federal Register; except that any of the officers provided for in title I of this Act may be nominated and appointed, as provided by this Act, at any time after the date of enactment of this Act. Funds available to any department or agency (or any official or component thereof), any functions of which are transferred to the Administrator and the Commission by this Act, may, with the approval of the President, be used to pay the compensation and expenses of any officer appointed pursuant to this subsection until such time as funds for that purpose are otherwise available.

(b) In the event that any officer required by this Act to be appointed by and with the advice and consent of the Senate shall not have entered upon office on the effective date of this Act, the President may designate any officer, whose appointment was required to be made by and with the advice and consent of the Senate and who was such an officer immediately prior to the effective date of this Act, to act in such office until the office is filled as provided in this Act. While so acting, such persons shall receive compensation at the rates provided by this Act for the respective offices in which they act.

TITLE IV — SEX DISCRIMINATION

88 Stat. 1254.

SEX DISCRIMINATION PROHIBITED

42 U.S.C. 5891

SEC. 401. No person shall on the ground of sex be excluded from participation in, be denied a license under, be denied the benefits of, or be subjected to discrimination under any program or activity carried on or receiving Federal assistance under any title of this Act. This provision will be enforced through agency provisions and rules similar to those already established, with respect to racial and other discrimination, under title VI of the Civil Rights Act of 1964. 42 U.S.C. 2000d. However, this remedy is not exclusive and will not prejudice or cut off any other legal remedies available to a discriminatee.

Approved October 11, 1974.

LEGISLATIVE HISTORY

HOUSE REPORTS: No. 93-707 (Committee on Government Operations) and No. 93-1445 (Committee of Conference).

SENATE REPORT: No. 93-980 accompanying S. 2744 (Committee on Government Operations).

National Environmental Policy Act of 1969, § 102

SECTION 102. The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall —

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by title II of this Act, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on —

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:

(i) the State agency or official has statewide jurisdiction and has the responsibility for such action,

(ii) the responsible Federal official furnishes guidance and participates in such preparation,

(iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and

(iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto

which may have significant impacts upon such State or Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.

(E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(F) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(G) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(H) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(I) assist the Council on Environmental Quality established by title II of this Act.

10 CFR § 51.20(e)

(e) In the Environmental Report required by paragraph (a) for light-water-cooled nuclear power reactors, the contribution of the environmental effects of uranium mining and milling, the production of uranium hexafluoride, isotopic enrichment, fuel fabrication, reprocessing of irradiated fuel, transportation of radioactive materials and management of low level wastes and high level wastes related to uranium fuel cycle activities to the environmental costs of licensing the nuclear power reactor, shall be as set forth in the following table. No further discussion of such environmental effects shall be required.

TABLE S-3. — *Summary of environmental considerations for uranium fuel cycle*

[Normalised to model LWR annual fuel requirement]

Natural resource use	Total	Maximum effect per annual fuel requirement of model 1,000 MWe LWR
Land (acres):		
Temporarily committed	63	
Undisturbed area	45	
Disturbed area	18	Equivalent to 90 MWe coal-fired powerplant.
Permanently committed	4.6	
Overburden moved (millions of MT)	2.7	Equivalent to 90 MWe coal-fired powerplant.
Water (millions of gallons):		
Discharged to air	156	≈2 percent model 1,000 MWe LWR with cooling tower.
Discharged to water bodies	11,040	
Discharged to ground	123	
Total	11,319	<4 percent of model 1,000 MWe LWR with once-through cooling.
Fossil fuel:		
Electrical energy (thousands of MW-hour)	317	<5 percent of model 1,000 MWe LWR output.
Equivalent coal (thousands of MT)	115	Equivalent to the consumption of a 45 MWe coal-fired powerplant.
Natural gas (millions of scf)	92	<0.2 percent of model 1,000 MWe energy output.
Effluents—chemical (MT):		
Gases (including entrainment):[1]		
SO_x	4,400	
NO_x[2]	1,177	Equivalent to emissions from 45 MWe coal-fired plant for a year.
Hydrocarbons	13.5	
CO	28.7	
Particulates	1,156	
Other gases:		
F-	.72	Principally from UF_6 production enrichment and reprocessing. Concentration within range of state standards—below level that has effects on human health.
Liquids:		
SO_4=	10.3	From enrichment, fuel fabrication, and reprocessing steps. Components that constitute a potential for adverse environmental effect are present in dilute concentrations and receive additional dilution by receiving bodies of water to levels below permissible standards. The constitutents that require dilution and the flow of dilution water are: NH_3—600 cfs. NO_3—20 cfs. Fluoride—70 cfs.
NO_3-	26.7	
Fluoride	12.9	
Ca^{++}	5.4	
Cl-	8.6	
Na^+	16.9	
NH_3	11.5	
Fe	.4	
Tailings solutions (thousands of MT)	240	From mills only—no significant effluents to environment.
Solids	91,000	Principally from mills—no significant effluents to environment.
Effluents—Radiological (curies):		
Gases (including entrainment):		
Rn-222	75	Principally from mills—maximum annual dose rate <4 percent of average natural background within 5 mi of mill. Results in 0.06 man-rem per annual fuel requirement.
Ra-226	.02	
Th-230	.02	
Uranium	.032	
Tritium (thousand)	16.7	Principally from fuel reprocessing plants—Whole body dose is 6 man-rem per annual fuel requirements for population within 50 mi radius. This is <0.007 percent of average natural background dose to this population. Release from Federal Waste Repository of 0.006 Ci/yr has been included in fission products and transuranics total.
Kr-85 (thousands)	350	
I-129	.0024	
I-131	.024	
Fission products and transuranics	1.01	
Liquids:		
Uranium and daughters	2.1	Principally from milling—included in tailings liquor and returned to ground—no effluents; therefore, no effect on environment.
Ra-226	.0034	From UF_6 production-concentration 5 percent of 10 CFR 20 for total processing of 27.5 model LWR annual fuel requirements.
Th-230	.0015	
Th-234	.01	From fuel fabrication plants—concentration 10 percent of 10 CFR 20 for total processing 26 annual fuel requirements for model LWR.
Ru-106[3]	.15	From reprocessing plants—maximum concentration 4 percent of 10 CFR 20 for total reprocessing of 26 annual fuel requirements for model LWR.
Tritium (thousands)	2.5	
Solids (buried):		
Other than high level	601	All except 1 Ci comes from mills—included in tailings returned to ground—no significant effluent to the environment, 1 Ci from conversion and fuel fabrication is buried.
Effluents — Thermal (billions of British Thermal Units)	3,360	<7 percent of model 1,000 MWe LWR.
Transportation (man-rem): Exposure of workers and general public.	.334	

[1] Estimated effluents based upon combustion of equivalent coal for power generation.
[2] 1.2 percent from natural gas use and process.
[3] Cs-137 (0.075 Ci/AFR) and Sr-90 (0.004 Ci/AFR) are also emitted.